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PERSONAL.

Mr. E. O. F. Mahr, civil engineer and surveyor, has opened an office at 10 Bruen Ave., Irvington, N. J.

Mr. Fred. Metcalf, civil engineer, was married Nov. 16, to Mrs. Mary Thornton, of Nunda, N. Y.

Mr. William Mahlon Davis has been appointed City Engineer and Superintendent of Water-Works of Berlin, Ont.

Mr. Edward M. Bogga, civil and hydraulic engineer, has been elected a member of the Chamber of Commerce of Los Angeles, Cal.

Mr. James A. Kelley, civil engineer, of Syracuse, N. Y., Assistant Engineer on the Delaware R. R., was married Oct. 26 to Miss Frances Kelley, of Andes, N. Y.

Mr. Elmer N. Gay, civil engineer on the Pittsburg & Western Ry., of Greensburg, Pa., was married at Youngstown, O., Nov. 8, to Miss Allie Jeannette Shannon, of Evans City, Pa.

Mr. A. G. Menocal, M. Am. Soc. C. E., Civil Engineer, U. S. N., retired, has been detached from duty with the Nicaraguan Canal Commission and ordered to the naval station at San Juan, Porto Rico.

Mr. W. H. Harris, Master Mechanic of the St. Louis Iron Mountain & Southern Ry., in charge of the shops at De Soto, Mo., has resigned on account of ill-health, after 20 years' service with that company.

Mr. Frank Harris, Chief Clerk to the Superintendent of the McCook Division of the Burlington & Missouri River R. R. in Nebraska, with headquarters at McCook, Neb., has been promoted to be Assistant Superintendent.

Mr. P. M. Serdobin, a machinery dealer, of St. Petersburg, Russia, is visiting the United States for the purpose of purchasing machinery and arranging to carry additional lines. He was in Philadelphia last week.

Mr. John C. Barclay has been appointed Electrician of the Western Division of the Western Union Telegraph Co., with headquarters at Chicago, Ill., to succeed Mr. Charles H. Summers, whose death was noted in our issue of Nov. 10.

Mr. William M. Greene, General Manager of the Baltimore & Ohio R. R., with headquarters at Baltimore, Md., has been appointed General Manager of the Baltimore & Ohio Southwestern Ry., with headquarters at Cincinnati, O., to succeed Mr. I. G. Rawn.

Mr. H. T. Porter, Engineer of Maintenance of Way of the Pittsburg, Bessemer & Lake Erie R. R., with headquarters at Pittsburg, Pa., on Dec. 1, will become Chief Engineer, and his present office will be abolished. His headquarters will remain at Pittsburg.

Mr. Bernard M. Shanley, President of the North Jersey Traction Co., with headquarters in Jersey City, N. J., has been elected President of the Essex & Hudson Gas Co., a new company which has been formed by the consolidation of the gas plants in Newark, N. J. The capital stock of the company is said to be $12,500,000.

Mr. Chas. Evan Fowler, M. Am. Soc. C. E., for the past six years Chief Engineer of the Youngstown Bridge Co., Youngstown, O., has resigned his position, and, accompanied by his family, will spend the winter in Los Angeles, Cal. His address will be 1023 West 36th St. He intends to return east in the spring to engage in professional work.

Mr. August C. Christensen, consulting and contracting engineer, has recently returned from Shanghai, China, where he has been engaged in arranging a water supply system for the inland city, involving two 2,000,000-gallon high duty pumping engines, a 50,000-gallon water tower, 100 ft. high, and 15 miles of mains, including hydrants, etc. He has removed his office from 120 Liberty St. to 141 Broadway, New York city.

Mr. John Galt, M. Can. Soc. C. E., for the past three years connected with the Department of Civil Engineering in the University of Toronto, Toronto, Ont., has been appointed City Engineer of Ottawa, Ont. He is a native of Scotland and a graduate of the Universities of Glasgow and of London. He came to the United States in 1878 and engaged in railway engineering. From 1881 to 1885 he was General Manager of the Boiler Inspection & Insurance Co. of Canada. Since then he has been practicing as a consulting engineer with offices in Toronto.

OBITUARY.

Mr. Gardner P. Morey, civil engineer, of Nassau, N. Y., died Nov. 15, aged 59.

Mr. Seabury Belden, of the firm of Seabury & E. S. Belden, Hartford, Conn., contractors on government breakwaters, died Nov. 28, aged 82.

Col. W. B. Mendenhall, President of the American Sewing Machine Co., for the past 30 years, died in Atlantic City, N. J., Nov. 27, aged 70. He was a veteran of the Civil War.

Col. Chalmers Scott, civil engineer, San Diego, Cal., died Nov. 16. He was born in New Orleans, La., May 9, 1845, and graduated from the University of New York, New York city. In 1872 he was Chief Engineer of the Texas Pacific R. R. survey and in 1880 he entered the employ of the California Southern Ry.

Mr. Philip Golay, M. Am. Soc. C. E., Assistant United States Engineer in charge of Locks and Dams on the Monongahela River, died of heart failure at his home in Morgantown, W. Va., Oct. 31, aged 71. He was born at Vevey, Ind., and was an immediate descendant of the Swiss colony that settled that place. For 26 years he was engaged in railway construction in Ohio, Missouri and Kansas, and during the winter of 1881-2, he was employed on the construction of the long trestle over Lake Ponchartrain for the New Orleans & North Eastern Ry. For the past 20 years he had been employed by the U. S. Government as an Assistant U. S. Engineer, at first on the Ohio River Improvement at Grand Chain and afterwards on the Monongahela River. He was elected a Member of the American Society of Civil Engineers, Sept. 5, 1877.

ENGINEERING SOCIETIES.

COMING TECHNICAL MEETINGS.

BROOKLYN INSTITUTE OF ARTS AND SCIENCES.
Dec. 2. Secy., Henry I. Weed, Brooklyn Institute of Arts and Sciences, Brooklyn, N. Y.
CHICAGO ELECTRICAL ASSOCIATION.
Dec. 2. "Practical Points in Street Railway Engineering," W. A. Harding. Secy., J. R. Cravath, 825 Monadnock Block, Chicago, Ill.
THE ENGINEERS' CLUB OF PHILADELPHIA.
Dec. 3. "Cement and Cement Testing Laboratories," R. W. Lesley. Secy., L. F. Rondinella, 1122 Grand St., Philadelphia, Pa.
ENGINEERS' CLUB OF COLUMBUS.
Dec. 3. Secy., H. M. Gates, 12½ North High St., Columbus, O.
ENGINEERS' SOCIETY OF WESTERN NEW YORK.
Dec. 5. Secy., H. J. March, Library Bldg, Buffalo, N. Y.
CIVIL ENGINEERS' SOCIETY OF ST. PAUL.
Dec 5. Secy., C. L. Annan, City Engineer's Office, St. Paul, Minn.
FRANKLIN INSTITUTE.
Dec. 6. "Reaction Velocity," Robert H. Bradbury; Dec. 13. "Commercial Photometers and Light Standards," Prof. A. J. Rowland; "The Kite as an Instrument in Meteorological Research," Prof. C. F. Marvin; Dec. 14. Fresh Studies of Pioneer Tools," Prof. H. C. Mercer. Secy., Wm. H. Wahl, 15 South Seventh St., Philadelphia, Pa.
ENGINEERS' CLUB OF ST. LOUIS.
Dec. 7. Secy., Richard McCulloch, 2401 N. Spring Ave., St. Louis, Mo.
FOUNDRYMEN'S ASSOCIATION, PHILADELPHIA.
Dec. 7. Secy., Howard Evans, Pier 45, Delaware Ave., Philadelphia, Pa.
AMERICAN SOCIETY OF CIVIL ENGINEERS.
Dec. 7. "Some Experiments on Bridges Under Moving Train Loads," F. E. Turneaure. Secy., C. W. Hunt, 220 West 57th St., New York city.
WESTERN SOCIETY OF ENGINEERS.
Dec. 7. "Electrolytic Corrosion of Underground Structures," Prof. D. C. Jackson. Secy., N. L. Litten, Monadnock Block, Chicago, Ill.
CANADIAN SOCIETY OF CIVIL ENGINEERS.
Dec. 8. Secy., C. A. McNab, 112 Mansfield St., Montreal, Canada.
ENGINEERING ASSOCIATION OF THE SOUTH.
Dec. 8. Secy., C. B. Wilson, 1000 Broad St., Nashville, Tenn.
ST. LOUIS RAILWAY CLUB.
Dec. 9. Secy., H. H. Roberts, 511 Commercial Bldg., St. Louis, Mo.
MONTANA SOCIETY OF ENGINEERS.
Dec. 10. Secy., A. S. Hovey, National Bank Bldg., Helena, Mont.
THE LOUISIANA ENGINEERING SOCIETY.
Dec. 12. Secy., J. F. Coleman, 712 Union St., New Orleans, La.
ENGINEERS' CLUB OF KANSAS CITY.
Dec. 12. Secy., F. W. Tuttle, Baird Bldg., Kansas City, Mo.
DENVER SOCIETY OF CIVIL ENGINEERS.
Dec. 13. Secy., W. B. Lawson, 36 Jacobson Bldg., Denver, Col.
CIVIL ENGINEERS' CLUB OF CLEVELAND.
Dec. 13. Secy., Wm. H. Searles, Case Library Bldg., Cleveland.
NORTHWEST RAILWAY CLUB.
Dec. 13. Secy, T. A. Foque, Soo Line, Minneapolis, Minn.
NEW ENGLAND RAILWAY CLUB.
Dec. 13. Secy., Edw. L Janes, P O Box 1158, Boston, Mass.
NEW YORK RAILROAD CLUB.
Dec. 15. Secy., W. W. Wheatley, 168 Montague St., Brooklyn, N. Y.
ENGINEERS' CLUB OF CINCINNATI.
Dec. 15. Secy., J. F. Wilson, P. O. Box 333, Cincinnati, O.
SOUTHERN AND SOUTHWESTERN RAILWAY CLUB.
Dec. 15. Secy., F. A. Charpiot, P. O Box 13, Savannah, Ga.
AMERICAN INSTITUTE AND THE HENRY ELECTRICAL SOCIETY.
Dec. 16. "Light," William Hallock. Secy., D. R. Lovejoy, 111 W. 38th St., New York city.
ENGINEERS' AND ARCHITECTS' ASSOCIATION OF SOUTHERN CALIFORNIA.
Dec. 16. Secy., F. H. Olmsted, Byrne Bldg., Los Angeles, Cal.
ROCHESTER ENGINEERING SOCIETY.
Dec. 16. Secy., John F. Skinner, Reynolds Library Bldg., Rochester, N. Y.
NORTHWESTERN TRACK AND BRIDGE ASSOCIATION
Dec. 16. Secy., D. W. Meeker, St. Paul, Minn.
ENGINEERS' CLUB OF PHILADELPHIA.
Dec. 17. Secy., L. F. Rondinella, 1122 Girard St., Philadelphia, Pa.
ENGINEERS' AND ARCHITECTS' CLUB OF LOUISVILLE.
Dec. 19. Secy., Marshall Morris, 16 Norton Bldg., Louisville, Ky.
ENGINEERS' CLUB OF MINNEAPOLIS.
Dec. 19. Secy., H. E. Smith, 1620 S. E. 14th St., Minneapolis, Minn.
TECHNICAL CLUB OF OMAHA.
Dec. 19. Secy., J. Harry Lawrie, Omaha, Neb.
ENGINEERS' SOCIETY OF WESTERN PENNSYLVANIA
Dec. 20. Secy., R. A. Fessenden, 410 Penn Ave., Pittsburg, Pa.
WESTERN RAILWAY CLUB.
Dec. 20. Secy., F. M. Whyte, 225 Dearborn St., Chicago, Ill.
ENGINEERS' AND ARCHITECTS' ASSOCIATION OF SOUTHERN CALIFORNIA.
Dec. 21. Secy., Frank H. Olmsted, Los Angeles, Cal.
BOSTON SOCIETY OF CIVIL ENGINEERS.
Dec. 21. Secy., S. E. Tinkham, City Hall, Boston, Mass.
WESTERN FOUNDRYMEN'S ASSOCIATION.
Dec. 21. Secy., B. M. Gardner, 1522 Monadnock Block, Chicago, Ill.
AMERICAN INSTITUTE OF ELECTRICAL ENGINEERS
Dec. 28. Secy., Ralph W. Pope, 26 Cortlandt St., New York city.
AMERICAN INVENTORS' AND MANUFACTURERS' ASSOCIATION.
Jan. 15. Annual meeting, Washington, D. C. Secy., Arthur Stewart, Washington Loan and Trust Bldg., Washington, D. C.
NORTHWESTERN ELECTRICAL ASSOCIATION.
Jan. 19-21. Semi-annual meeting, Milwaukee, Wis. Secy., Thos. R. Mercein, 511 Montgomery Bldg., Milwaukee, Wis.
TECHNICAL SOCIETY OF THE PACIFIC COAST.
Jan. 20. Annual meeting. Secy., O. Von Geldern, 819 Market St., San Francisco, Cal.
NATIONAL ASSOCIATION OF MANUFACTURERS.
Jan. 24-26. Annual convention, Cincinnati, O. Secy., E. P. Wilson, Room A, Chamber of Commerce, Cincinnati, O.

ENGINEERS' CLUB OF CINCINNATI.—A regular meeting of this Club was held Nov. 17. The evening was given up to a discussion of macadam road construction.

AMERICAN INSTITUTE, Electrical Section.—This Society, in conjunction with the Henry Electrical Society, held a meeting on Nov. 26, at Cooper Institute, New York city, at which Prof. Wm. A. Anthony presented a lecture on "Heat."

CONNECTICUT STREET RAILROAD ASSOCIATION.—The 4th annual meeting of this association was held Nov. 18, at New Haven, Conn. The following officers were elected for the ensuing year:

Pres., Henry S. Parmlee; Vice-Pres., E. J. Hill; Secy., B. W. Porter; Treas., E. S. Goodrich.

ENGINEERS' CLUB OF PHILADELPHIA.—The last regular meeting of this Club was held Nov. 19 with 95 members and visitors present. The paper of the evening, "Engine and Boiler Testing," by Prof. H.W. Spangler, described methods and apparatus that should be used, and precautions which must be taken, to obtain the greatest possible degree of accuracy in the results of engine and boiler tests.

ENGINEERS' CLUB OF COLUMBUS.—At the regular meeting of this Club, held on Nov. 19, Mr. E. Eysenbach read a paper, entitled "Fuel Gas." The following topics, postponed from Nov. 5, were discussed: "Mechanical vs. Natural Draft for Power Stations," "Protected Wooden Floors vs. Fireproof Steel Construction in Office Buildings," "Relative Merits of Dry and Leaded Joints in Wrought Iron Water Pipes."

CIVIL ENGINEERS' SOCIETY OF ST. PAUL.—This Society held a meeting on Nov. 23, after inspecting a device for raising street cars up "Selby Avenue Hill." This is known as the Bronsdon counterbalance system, and in this case operates for a distance of 1,000 ft.; 500 ft. of which is on a 16% grade with 200 ft. on a curve and the remainder on a slight grade.

An invitation to visit the beet sugar plant at St. Louis Park, extended by the Engineering Society of Minneapolis, was accepted. C. L. Annan, Secy.

ENGINEERS' CLUB OF ST. LOUIS.—The 479th meeting of this Society was held Nov. 16 with 45 members and visitors present. After a committee to nominate officers for the ensuing year had been appointed, Prof. J. B. Johnson presented a paper, entitled "The Engineer as the Guardian of Public Health." The paper dealt with the various means by which the injurious bacteria found their way into the human system, and stated that it is very largely the scope of the engineer to supply means of prevention of such infection, such as the proper building and cleaning of streets, removal of sewage and the supplying of pure drinking water. The author traced some of the unsanitary arrangements of St. Louis residences and criticised some defects of its sewer system. As St. Louis is provided with surface water from the Mississippi River, itself a great natural sewer, and as the sewage from Chicago will soon be turned into this river, it will be an absolute necessity to provide a filtration plant for the St. Louis water supply.

E. R. Fish, Secy. pro tem.

NEW PUBLICATIONS.

SLIDE-VALVE DIAGRAM CHART.—Diagram on Card 9¼ x 11 ins., and book 4 x 6 ins; pp. 24. By M. R. Conway, M. E. The Lunkenheimer Co., Cincinnati, O.

This chart is designed to provide a convenient means for following the movements of a slide-valve, with reference to the positions of the crank, and the eccentric, without the aid of formulas or drawings. It is a very ingenious con-

trivance, and will be appreciated by students of slide-valve motions. The chart and book may be obtained free on application.

AMERICAN STREET RAILWAY ASSOCIATION.—Report of the Annual Meeting, 1898. Secy., T. C. Pennington, 2020 State St., Chicago. Paper, 8vo; pp. 255.

This volume contains a full report of the proceedings of the seventeenth annual meeting, held at Boston, Mass., in September, which were reported in our issue of Sept. 15. It includes the reports and papers presented, with the discussions thereon, and also the speeches, notes of the excursions, record of attendance and membership, etc.

NATIONAL SANITARY ASSOCIATION.—Proceedings of Meetings Held at Brooklyn, N. Y., in 1896, and Nashville, Tenn., in 1897. Capt. Thos. E. Veal, Secretary, Atlanta, Ga. Paper; 6×9 ins.; pp. 80.

This society was organized in 1895. The proceedings here given for 1896 occupy 65 pages and those for 1897 only 15 pages of the pamphlet. Two short papers on garbage disposal, relating principally to the experience at Atlanta, are the principal ones of possible value to engineers.

WATER SUPPLY AND IRRIGATION PAPERS OF THE U. S. GEOLOGICAL SURVEY. No. 17.—Irrigation near Bakersville, Cal., by Carl Edward Grunsky; No. 18.—Irrigation near Fresno, Cal., by Carl Edward Grunsky. Washington, D.C. Paper; 9x5¾ ins.; pp. 96 and pp. 94. Maps and views.

These two separate papers treat in detail of the hydrography, methods of irrigation adopted and the results achieved for the separate canals and ditches in the sections named. In the San Joaquin Valley the methods of irrigation cover flooding, irrigation by furrows, by saturation of subsoils and by subsurface conduits, and each is separately described. Soils and rainfall; cost of ditches and their appurtenances and maintenance; duty of water and average cost per acre irrigated; discharge of canals and loss of water, by evaporation and seepage, and effect of irrigation on the water table, are some of the subjects discussed in describing individual cases of irrigation.

BACTERIOLOGICAL EXAMINATION OF LONDON CRUDE SEWAGE. First Report. By Dr. Frank Clowes, Chemist to the London County Council. London: P. S. King & Son, Agents for the Publications of the London County Council. Paper; 8×13 ins.; pp. 11; table and folding plate. Price 6d. in England; 25 cts. in America.

This is a preliminary report on the bacteriological results obtained by filtering sewage through coke. It was begun before the filter was put in use and will be followed by reports on the results of examinations of the filtrate. The bacteriological work was done by Dr. A. C. Houston, at the Public Health Laboratory, St. Bartholomew's Hospital. The results here presented relate to the total number of bacteria and spores in the sewage and to similar determinations for a number of the most abundant species. The plate contains a number of photo-micographs of the bacteria found.

MEMORANDUM ON THE MINERAL RESOURCES OF THE PHILIPPINE ISLANDS.—By Geo. F. Becker. From the 19th Annual Report of the U. S. Geological Survey. Charles D. Walcott, Director. Paper, 11½ × 7¾ ins.; pp. 687 to 693.

The appearance of this memorandum as a final chapter in the last issue of the "Mineral Resources of the United States" is antedating events somewhat, but the information is timely. The memorandum is intended to cover the main discoveries of geological and economic interest, as obtained from many sources. Only about 20 of the many islands are known to contain valuable minerals. These include coal, gold, copper, lead, iron, sulphur, marble, kaoline, silver, mercury, and oil. The coal may be classed as highly carbonized lignite, and is apt to contain much sulphur. The finest known beds, in the Island of Batan, are from 2½ to 14½ ft. thick. The heating effect is about one-fourth that of Cardiff coal. Gold is found in a vast number of places, and is mostly detrital, or of the placer type; in Lepanto quartz veins are found, but these yield only from $6 to $7 per ton. Copper is also abundant in locality, and mean assays of the best mines opened show 16% of copper in the trachyte country rock. Lead is found in Cebu, with 96 grammes of silver, 6 grammes of gold, and 565.5 kilos of lead to the metric ton. Iron is abundant in many of the islands, but the lignite is unsuitable for smelting it. Sulphur deposits abound about active and extinct volcanoes in the Philippines. There is only a rumor as to the existence of mercury.

STATE BOARD OF HEALTH OF MAINE.—Report for the Two Years Ending Dec. 31, 1897. A. G. Young, M. D., Secretary, Augusta, Me. Paper; 6×9 ins.; pp. 395; illustrations and tables.

The bulk of this report is taken up with two exceptionally valuable papers, one being a "Bacteriological Report Upon Formaldehyde," by F. C. Robinson and B. L. Bryant, of Bowdoin College, Brunswick, Me.; and the other being "Notes on Disinfectants and Disinfection," by the secretary of the board. These two papers occupy about about 250 pages. The first one is mainly devoted to an account of experiments on formaldehyde conducted by Professor Robinson, which confirm previous views, both as to the value of this new disinfectant and its limitations in the present state of the development of means for applying it. The paper on disinfectants reviews the whole subject, by agents employed and by the purposes for which disinfection is required. Ozone and electrolysis as means of purifying water and sewage are among the agents reviewed. Some German experiments with ozone appear to give promising results, but with serious limitations, while no figures bearing on the economy of the agent are given. All the so-called electrical processes are set down as being only a means of producing chemical agents, most of the evidence regarding them being unsatisfactory as to results or cost. These "Notes" form a valuable supplement, and in some measure supersede the exhaustive Report of the Committee on Disinfectants Appointed by the American Public Health Association, whose investigations extended over three years and were published in 1888.

STATE BOARD OF HEALTH OF MASSACHUSETTS.—Report for 1897. Samuel W. Abbott, M. D., Secretary; X. H. Goodnough, C. E., Engineer; State House, Boston. Cloth; 6×9 ins.; pp. LX. + 714; many tables.

This volume contains the usual reviews of the work of the board, including advice to cities and towns regarding water supply, sewerage and sewage disposal; analyses of the water from public supplies; studies of stream pollution; the Lawrence experiments on sewage and water purification; and results obtained at the sewage purification plants of the state. In addition there is a special report on the restoration of Green Harbor. A new line of work in the experiments on sewage purification was the study of some of the so-called English bacterial filters, the results of which seem promising if the filters continue to show the efficiency thus far maintained. Some experiments on straining sewage through coke and then passing it through two sand beds, one above the other, on a plan like that in use at Reading, Pa., were carried on. The results were poor. Information regarding these tests has been abstracted for separate publication.

TRADE PUBLICATIONS.

(The standard sizes for pamphlets and trade catalogues recommended by all the principal engineering societies of the United States are: 8 1-2 x 6 ins.; 6 x 9 ins., and 9 x 12 ins.)

STEAM REGULATING DEVICES.—The Mason Regulator Co., 6 Oliver St., Boston. Pamph.; 3¾ × 6 ins.; pp. 40.

This catalogue describes pump governors, reducing valves, pressure and rheostat regulators, etc.

CAST-IRON PIPE, PIPE FITTINGS, ETC.—M. J. Drummond & Co., 192 Broadway, New York city. Pamph.; 9 × 6 ins.; pp. 38.

This is an illustrated catalogue of cast-iron pipe, angles, bends, valves, and other gas and water-works supplies.

"HELPS IN BRAZING."—Joseph Dixon Crucible Co., Jersey City, N. J. Pamph.; 6¾ × 5½ ins.; pp. 12.

This pamphlet describes a crucible and furnace used for liquid metal brazing, and the use of graphite as an antiflux.

VALVES, EXPANSION JOINTS, ETC.—Coldwell-Wilcox Co., Newburg, N. Y. Pamph.; 8¾ × 5 ins.; pp. 20.

This catalogue illustrates valves for water and steam, expansion joints of various forms, water-catchers, flexible joints, etc.

INJECTORS, INSPIRATORS, ETC.—The Hancock Inspirator Co., Boston, Mass. Pamph.; 3½ × 6 ins.; pp. 32.

This is an illustrated catalogue of the various forms of the well-known Hancock "inspirator," and of the Loftus restarting injector.

ENGINES AND BOILERS.—James Leffel & Co., Springfield, O. Pamphlet "F"; 8 × 5 ins.; pp. 32.

The engines illustrated in this catalogue are of the center-crank type, sizes up to 10½ × 12 ins., with either automatic cut-off or throttling governor. The boilers are tubular, horizontal or vertical, in sizes up to 50 HP.

"MOGUL" DRAUGHT SPRINGS.—Wilson Mfg. Co., 147 Cedar St., New York city. Pamph.; 5½ × 8 ins.; pp. 24.

An illustrated catalogue of springs for use on the traces for drawing heavy vehicles by horse or other animal power, in order to avoid shocks due to starting heavy loads or to encountering rough places in the road.

STEAM SEPARATORS AND OIL ELIMINATORS.—Hoppes Mfg. Co., Springfield, O. Pamph.; 9 × 6 ins.; pp. 16.

The Hoppes Mfg. Co. is well known as the manufacturer of feed water heaters and purifiers. It has recently put on the market a steam separator and oil eliminator in two forms for horizontal and vertical pipes, which are illustrated in this catalogue.

CONCRETE MIXER.—Ransome & Smith Co., Monadnock Block, Chicago, Ill. Paper; 6½ × 5¼ ins.; pp. 16.

This little pamphlet illustrates a drum or rotary mixer, in which the concrete is fed in at the center on one side, and discharged from the center at the other side. The machine has been used on several works, and is now in use for mixing concrete for the bridge abutments on the track elevation work of the Chicago, Milwaukee & St. Paul Ry. at Chicago.

PNEUMATIC PUMPING MACHINERY.—The Merrill Pneumatic Pump Co., Bound Brook, N. J., Pamph.; 6 × 9 ins.; pp. 8.

In the pneumatic system of pumping, air is compressed at any convenient location and led by pipes to the pumps. The method of using the air varies according to depth of well or other circumstances. Several forms of apparatus are shown, including single and duplex displacement chambers, a differential piston pump, and an "inductor," which is a modification of the "air-lift" pump.

LOCOMOTIVES.—Dickson Locomotive Works, Scranton, Pa. Cloth; 6 × 9 ins.; pp. 72.

This handsome and compact volume shows a great variety of locomotives built by this firm, with lists of dimensions of the same, and there are also a few pages of information respecting hauling capacity, dimensions, HP. exerted, etc. The engines range from little four-wheel tank engines for industrial plants, and compressed air locomotives (with cylindrical reservoirs or a group of "bottles"), to ordinary passenger and freight engines, including the ten-wheel express engines for the Atchison, Topeka & Santa Fe Ry., illustrated in our issue of March 3, 1898. Engines built for Japan and Honduras are also shown. The firm also builds two-cylinder compound locomotives, under the patents of Mr. F. W. Dean, these engines having either an automatic starting valve or one which can be operated at will by the engineman, according to the preferences of the purchasers.

GATE VALVES AND HIGH-PRESSURE FITTINGS.—The Kennedy Valve Mfg. Co., 75 John St., New York. Pamph.; 7 × 10½ ins.; pp. 32.

This is an illustrated catalogue and price-list of a variety of gate-valves and other fittings for high steam pressures.

DUMP CARTS FOR GARBAGE AND ASHES.—U. S. Sanitary Co., 618 Pennsylvania Ave., N. W., Washington, D. C. Paper; 7 × 5 ins.; pp. 19; illustrated.

This catalogue describes not only the semi-cylindrical carts made by the company for some years past, but also a new style of carts with a flat bottom and inclined ends.

TRAPS.—National Sanitary Supply Co., 273 Pearl St., New York city. Paper; 6 × 3 ins.; pp. 19; illustrated.

Under the trade name of Sanos, this company is manufacturing back pressure traps of various sorts, to be used alone or in combination with U-shaped traps to guard against sewer air or water. The device is simply a flap valve, seated on a knife edge to guard against leakages by fouling.

HYDRAULIC TOOLS.—The Watson-Stillman Co., 210 East 43d St., New York. Catalogue No. 50. Pamph.; 6 × 9 ins.; pp. 70.

This is an "assortment of illustrated sheets" selected from a large catalogue issued by the same company. It contains descriptions and price lists of hydraulic machinery especially adapted for railroad work, including a great variety of jacks, punches, etc.

CORLISS ENGINES, ETC.—The Rarig Engineering Co., Columbus, O. Pamph.; 8 × 5¼ ins.; pp 56.

The Rarig-Corliss engine seems to be especially designed for the heaviest class of work, such as rolling mills, street railways, etc. The pamphlet also illustrates blowing engines, hoisting engines, condensers, etc. So far as may be judged from the illustrations in the catalogue, the engines built by this company are of excellent design, but we cannot say as much for the catalogue itself. The engravings are poor, the page is too small, and even the spelling is bad.

STEAM ENGINES.—Chandler & Taylor Co., Indianapolis, Ind. Pamph.; 9 × 6 ins.; pp. 24.

This is an illustrated catalogue of single cylinder automatic cut-off horizontal engines. The Allis Inertia governor is used in this engine. An interesting feature of one of the styles shown is a self-contained slide-crank engine, the "out-board" bearing being cast in the bed plate and the governor wheel, of unusually small diameter, being between it and the main bearing. The catalogue is a fine example of the printer's and engraver's art, and gives the reader a favorable impression of the engine, which is enhanced by the fair and modest claims made in the text.

WATER-WHEEL GOVERNORS.—Lombard Water-Wheel Governor Co., 61 Hampshire St., Boston, Mass. Pamph.; 9 × 5¾ ins.; pp. 32.

The Lombard water-wheel governor consists essentially of a hydraulic piston which applies its thrust in either direction, through a rack, to the water-wheel gates. The travel of the hydraulic piston is controlled by a very sensitive balanced valve, which in turn is controlled by the position of centrifugal balls driven from the water-wheel shaft. The pamphlet contains photographic illustrations of several styles of the governor, and also of automatic records of speed recorders, showing the close regulation obtained by the governor.

PUNCHING AND PRESSING MACHINERY.—The Works of E. W. Bliss Co., Brooklyn, N. Y. Pamph.; 12 × 9 ins.; not paged; 20 full-page photographic views, with numerous advertisements.

This bulky pamphlet contains two pages of an introduction giving the history of the E. W. Bliss Co. since the business was started in 1866, and a long list of articles for the making of which its machinery is adapted. Then follows three pages of small cuts of presses, 20 full-page half-tone cuts of views of different portions of the works interleaved with advertisements of fifty or more manufactures of various specialties. The pamphlet seems to have been gotten up by some advertising solicitor. It is handsomely printed on heavy plate paper and some of the photographic views are interesting, but it has no other merit, and no good reason for existence. It has no index, and its size and shape are such that few would care to keep it, even if it were worth keeping.

BOILER TUBE CLEANERS.—The Lagonda Mfg. Co., Springfield, O. Pamph.; 9 × 6 ins.; pp. 8.

This circular describes the "Weinland" tube cleaners for removing scale from the inside of water-tubes. Several varieties are shown, one of which is a power cleaner, driven by a small turbine wheel, forming part of the tool itself. The circular contains, as do nearly all circulars of scale cleaners, the false statement that "it has been proved" that a tube with 1-16-in. of scale requires 15% more fuel than a clean tube; ⅛-in., 66% more; ¼-in., 150% more, etc. No one has ever proved it, but the old "fake" will probably continue in print for the next century.

OCTOPUS ANTI-INCRUSTATOR.—American Octopus Co., 120 Liberty St., New York city. Pamph.; 4½ × 6¾ ins.; pp. 32.

The "octopus" is a disk-shaped brush of some sort of fibers, enclosed between washers and rings of different metals. It is claimed that when the octopus is placed inside of a steam boiler containing scale-forming water, an electric action is set up, and the impurities of the water are deposited upon the fibers. The claim may be true, but if so, it is likely that an old scrubbing brush, to which is attached wires of copper and a plate of zinc would be quite

as effective. We find here also the time-worn statements as to the loss of fuel due to scale, but the figures are different from those in the case previously noticed, viz.: 1-16-in. causes a loss of 13%, ¼-in. of 38%, and ½-in. of 60%.

THE TROPENAS STEEL PROCESS.—Powell & Colne, Agents for the United States, 111 Broadway, New York city. Pamph.; 6 x 9 ins.; pp. 21.

This pamphlet is a reprint of a paper read by Mr. Alexander Tropenas at the Cincinnati meeting of the American Foundrymen's Association, in June. The Tropenas process is the most recent of the so-called "little Bessemer" processes, with surface blow. The converters are usually of 2 tons capacity. Several of them are in use in Europe.

CONSTRUCTION NEWS.

CONDENSED LIST OF CONTRACTS PENDING WITH DATE OF OPENING BIDS.

Bids to be opened.	Work.	Place.	See Eng. News.
Dec. 1.	Business building,	Cleburne, Tex.	Nov. 10
Dec. 1.	Seawall, S. I., N. Y. Advertised, Eng. News, Nov. 10 and 17.		Nov. 10
Dec. 1.	Electric lighting,	Sumter, S. C.	Oct. 6
Dec. 1.	Electric light plant,	Clinton, Ill.	Oct. 13
Dec. 1.	Brick sewer,	Buffalo, N. Y.	Nov. 24
Dec. 1.	Court-house plans,	Lafayette, Ala.	Nov. 24
Dec. 1.	Street bonds,	Wilkinsburg, Pa.	Nov. 24
Dec. 1.	System of clocks,	Troy, N. Y.	Nov. 24
Dec. 1.	Turnpike bonds,	Winchester, Ky.	Nov. 24
Dec. 1.	Public lighting,	St. Paul, Minn.	Dec. 1
Dec. 1.	Repairing asphalt paving,	Buffalo, N. Y.	Dec. 1
Dec. 1.	Sewers,	Scranton, Pa.	Dec. 1
Dec. 2.	Sewers,	Denver, Colo.	Dec. 1
Dec. 2.	Asphalt paving, etc.,	Louisville, Ky.	Dec. 1
Dec. 2.	Pine timber,	New York, N. Y.	Nov. 24
Dec. 2.	Paving,	Omaha, Neb.	Nov. 24
Dec. 2.	Granite stones,	New York, N. Y.	Nov. 24
Dec. 2.	Pipe sewers, Advertised, Engineering News, Nov. 24.	Mason City, Ia.	Nov. 24
Dec. 2.	Arc lighting,	Asheville, N. C.	Oct. 13
Dec. 3.	Wooden or iron bridge,	Rome, Ga.	Nov. 24
Dec. 3.	Shell road,	Annapolis, Md.	Dec. 1
Dec. 5.	Stone,	Toronto, Ont.	Dec. 1
Dec. 5.	School building,	New York, N. Y.	Dec. 1
Dec. 5.	Sewers,	Syracuse, N. Y.	Dec. 1
Dec. 5.	Power plant,	Brandon, Vt.	Nov. 17
Dec. 5.	Pipe sewers,	Albany, N. Y.	Dec. 1
Dec. 5.	Macadamizing,	San Rafael, Cal.	Dec. 1
Dec. 5.	Stone bridge,	Sarcoxie, Mo.	Dec. 1
Dec. 5.	Pipe sewers,	Toledo, O.	Nov. 24
Dec. 5.	Supplies,	Toronto, Ont.	Nov. 24
Dec. 5.	Grading,	Seattle, Wash.	Nov. 24
Dec. 5.	Bridges (7),	Leavenworth, Kan.	Nov. 24
Dec. 5.	Valves, pipe, etc.,	Toronto, Ont.	Nov. 24
Dec. 5.	Street cleaning, etc.,	Philadelphia, Pa.	Nov. 24
Dec. 5.	Stone heads, Advertised, Eng. News, Nov. 17 and 24.	Newark, N. J.	Nov. 24
Dec. 5.	Bulkhead and filling,	Boston, Mass.	Nov. 24
Dec. 5.	Wall,	Boston, Mass.	Nov. 24
Dec. 5.	Pumping engine, Advertised, Eng. News, Oct. 27 to Nov. 10.	Oil City, Pa.	Oct. 27
Dec. 5.	Removing wreck,	Philadelphia, Pa.	Nov. 10
Dec. 5.	Water-works, Advertised, Eng. News, Nov. 10 to 24.	West Tampa, Fla.	Nov. 10
Dec. 5.	Court house,	Garner, Ia.	Nov. 10
Dec. 6.	Canal, Advertised, Eng. News, Nov. 10 to Dec. 1.	Tampico, Ill.	Nov. 10
Dec. 6.	Street bonds,	Springfield, O.	Nov. 3
Dec. 6.	School building,	Sacramento, Cal.	Nov. 17
Dec. 6.	Steam heating,	New Brighton (S.I.), N. Y.	Nov. 24
Dec. 6.	Water-works,	East Grand Forks, Minn.	Nov. 24
Dec. 6.	Pipe sewers,	St. Louis, Mo.	Nov. 24
Dec. 6.	Electric light plant,	E. Grand Forks, Minn.	Nov. 24
Dec. 6.	Machinery and tools,	Brooklyn, N. Y.	Dec. 1
Dec. 6.	Machinery and tools,	Washington, D. C.	Dec. 1
Dec. 6.	Machinery and tools,	Portsmouth, N. H.	Dec. 1
Dec. 6.	Iron bridge, etc.,	Rensselaer, N. Y.	Dec. 1
Dec. 6.	Combination bridges (2),	Milan, Mo.	Dec. 1
Dec. 6.	Brick paving,	Cincinnati, O.	Dec. 1
Dec. 7.	Placing hydrants,	Louisville, Ky.	Dec. 1
Dec. 7.	Cleaning catchbasins,	Cleveland, O.	Dec. 1
Dec. 7.	Timber bulkheads,	Boston, Mass.	Dec. 1
Dec. 7.	Repairing steamboat,	New York, N. Y.	Dec. 1
Dec. 7.	Dredging,	New York Bay, N. Y.	Nov. 24
Dec. 7.	Electric light plant, Advertised, Eng. News, Nov. 24 and Dec. 1.	New Richmond, O.	Nov. 24
Dec. 7.	Water-works, Advertised, Eng. News, Nov. 24 and Dec. 1.	New Richmond, O.	Nov. 24
Dec. 7.	Changing Van Buren St. bridge,	Chicago, Ill.	Oct. 30
Dec. 7.	Torpedo storehouse, Advertised, Eng. News, Nov. 10 to Dec. 1.	Fort Caswell, N. C.	Nov. 10
Dec. 8.	Bridge approach,	Zanesville, O.	Nov. 10
Dec. 8.	Police patrol system,	Youngstown, O.	Nov. 24
Dec. 8.	Electric light plant,	Litchfield, Ill.	Dec. 1
Dec. 8.	Sale of floating dock,	Havana, Cuba	Dec. 1
Dec. 8.	Park work,	New York, N. Y.	Dec. 1
Dec. 8.	Water pipe, boilers, etc.,	New York	Dec. 1
Dec. 9.	Laundry machinery,	Boston, Mass.	Dec. 1
Dec. 9.	Bridge work,	Fort Scott, Kan.	Dec. 1
Dec. 9.	Bridge work,	Minneapolis, Minn.	Dec. 1
Dec. 9.	Removal snow,	New York, N. Y.	Dec. 1
Dec. 9.	Fire hose,	Buffalo, N. Y.	Nov. 24
Dec. 10.	Intercepting sewers, Advertised, Engineering News, Nov. 3.	Washington, D. C.	Nov. 3
Dec. 10.	Crane (100 tons capacity),	Brooklyn, N. Y.	Nov. 10
Dec. 10.	Sterilizing apparatus,	New Haven, Conn.	Dec. 1
Dec. 10.	Storehouse,	New York, N. Y.	Dec. 1
Dec. 12.	Hospital building,	Bridgeton, N. J.	Dec. 1
Dec. 12.	Armor plate plant, Advertised, Engineering News, Dec 1.	St. Petersburg, Russia.	Dec. 1
Dec. 12.	Extending water-works,	Orange, N. J.	Dec. 1
	Advertised, Engineering News, Dec. 1.		
Dec. 12.	Sewers (8,400 ft.),	Little Rock, Ark.	Dec. 1
Dec. 12.	Water bond,	Reno, Nev.	Dec. 1
Dec. 12.	Paving, curbing, etc.,	Dayton, O.	Nov. 17
Dec. 12.	Boilers for dredges,	Honolulu, H. I.	Nov. 24
Dec. 13.	School building,	Washington, D. C.	Nov. 24
Dec. 13.	Purchase of power franchise,	Stockton, Cal.	Nov. 24
Dec. 13.	Tunnel,	Boston, Mass.	Dec. 1
Dec. 13.	Pier and tunnel,	Philadelphia, Pa.	Dec. 1
Dec. 13.	Hospital building,	Brooklyn, N. Y.	Dec. 1
Dec. 13.	Sewer bonds, ($75,000),	Independence, Mo.	Dec. 1
Dec. 13.	Sewers, etc.,	Philadelphia, Pa.	Dec. 1
Dec. 13.	Bridge work,	Philadelphia, Pa.	Dec. 1
Dec. 14.	Gravel roads (19 miles),	Brazil, Ind.	Dec. 1
Dec. 14.	Water pipe, hydrants, etc.,	Vancouver, B.C.	Dec. 1
Dec. 15.	Paving (3 streets),	Beaumont, Tex.	Dec. 1
Dec. 15.	Court house,	Garner, Ia.	Dec. 1
Dec. 15.	Steam heating,	Flandreau, S. Dak.	Dec. 1
Dec. 15.	Railway work, Advertised, Eng. News, Dec. 1 and 8.	New York, N. Y.	Dec. 1
Dec. 15.	Water-works,	Somerville, Tenn.	Dec. 1
	Advertised, Engineering News, Dec. 1.		
Dec. 15.	Electric plant, Advertised, Engineering News, Dec. 1.	Somerville, Tenn.	Dec. 1
Dec. 15.	Bridges (9) and viaduct,	Valatie, N. Y.	Dec. 1
Dec. 15.	Brick paving,	Jacksonville, Fla.	Dec. 1
Dec. 15.	Church building,	Webster City, Ia.	Nov. 24
Dec. 15.	Storm sewers,	Denver, Colo.	Oct. 13
Dec. 17.	Macadam roads (20 miles), Advertised, Engineering News, Nov. 24.	Crown Point, Ind.	Nov. 24
Dec. 17.	Heating, ventilating, etc.,	Cincinnati, O.	Dec. 1
Dec. 19.	Asphalt or brick paving,	Hamilton, O.	Dec. 1
Dec. 19.	Tunnel sewer, Advertised, Eng. News, Nov. 17 and 24.	Newburg, N. Y.	Nov. 17
Dec. 20.	Revetments,	Keweenaw Point, Mich.	Nov. 24
	Advertised, Eng. News, Nov. 24 to Dec. 15.		
Dec. 20.	Electric plant,	Mount Pleasant, Mich.	Dec. 1
Dec. 20.	Macadamizing,	Cincinnati, O.	Dec. 1
Dec. 21.	Street work,	Hoboken, N. J.	Dec. 1
Dec. 21.	Glass for electric lamps,	Cleveland, O.	Dec. 1
Dec. 21.	Court house annex,	Atlanta, Ga.	Nov. 3
Dec. 22.	Bridge superstructure, Advertised, Eng. News, Nov. 10 and 17.	Lorain, O.	Nov. 10
Dec. 23.	Light station, Advertised, Eng. News, Nov. 17 and 24.	Tompkinsville, (S.I.), N. Y.	Nov. 17
Dec. 23.	Cement and seawall, Advertised, Eng. News, Dec. 1 to 22.	Fort Morgan, Ala.	Dec. 1
Dec. 28.	Steel bridge,	Norfolk, Va.	Dec. 1
	Advertised, Eng. News, Dec. 1 to 15.		
Dec. 28.	Railway bridge, Advertised, Engineering News, Nov. 24.	Chicago, Ill.	Nov. 24
Dec. 31.	Plans for station, etc.,	Stockholm, Sweden.	June 23
Jan. 1.	City hall plans,	Bridgeport, Conn.	Aug. 18
Jan. 1.	Draw bridge,	Cathlamet, Wash.	Nov. 17
Jan. 1.	Water-works,	Pasadena, Cal.	Nov. 17
Jan. 1.	Electric plant,	Pasadena, Cal.	Dec. 1
Jan. 2.	Bridge, Advertised, Eng. News, Sept. 29 and Oct. 6.	Quebec, Que.	Sept. 29
Jan. 2.	Arc lighting,	Vincennes, Ind.	Oct. 27
Jan. 3.	Steel bridge,	Brookhaven, Miss.	Nov. 24
Jan. 3.	Water-works,	Gaffney, S. C.	Dec. 1
Jan. 5.	Macadam roads (17½ miles),	Decatur, Ind.	Dec. 1
Jan. 6.	Water-gas plant,	Johannesburg, So. Africa.	Oct. 27
Jan. 6.	Extension, electric plant,	Johannesburg, S. Af.	Oct. 27
Jan. 9.	Repairing curb, etc.,	Houston, Tex.	Nov. 24
Jan. 10.	Capitol building,	Phoenix, Ariz.	Dec. 1
Jan. 10.	Sewer bonds ($50,000),	Grass Valley, Cal.	Dec. 1
Jan. 14.	Park work and plans,	Philadelphia, Pa.	Nov. 17
Jan. 15.	Sewers and drainage,	Callao, Peru.	Dec. 1
Jan. 24.	Footway tunnel,	London, England.	Nov. 10
Feb. 1.	School building,	Peoria, Ill.	Dec. 1
Feb. 2.	Electric lighting,	New Orleans, La.	Nov. 3
Feb. 7.	Sale of canal,	Annapolis, Md.	Dec. 1
Feb. 10.	Jail building,	Keyser, W. Va.	Sept. 29
Mar. 15.	Electric railway (23 miles), Advertised, Eng. News, Nov. 17 to Dec. 8.	Shanghai, China.	Nov. 24
Mar. 15.	Purchase of water-works,	Belem, Brazil	Dec. 1
Mar. 31.	Telephone concession, Advertised, Eng. News, Nov. 17 to Dec. 8.	Shanghai, China.	Nov. 24

RAILWAYS.

BISMARK & POTOMAC VALLEY.—Surveys are being made for this new line, according to reports, to run from Davis through Tucker, Grant and Hardy counties to a point on the state line in Hampshire county, W. Va.; the route is through a coal and lumber region. F. M. Howard, Forest Bldg., Philadelphia, is said to be interested.

CALIFORNIA.—Bids are asked by A. S. Kenagy, Clk. of Ventura county, until Dec. 17, for the purchase of a franchise to construct a standard gage line of steam railway along the public highways from Montalvo to Oxnard.

CAPE FEAR & YADKIN VALLEY.—Notice is given that the property of this company will be sold on foreclosure, at Fayetteville, N. C., Dec. 29, by E. S. Martin and Clement Manly, Master Comrs. The length of the system is 342 miles. John Gill, Recvr., Baltimore, Md.

CHICAGO & NORTHWESTERN.—Reports state that McDougall & Duffy have left Kent, O., for Wall Park, Ia., where they have a contract for 70,000 cu. yds. of grading for this company. J. E. Blunt, Ch. Engr., Chicago, Ill.

CHOCTAW & MEMPHIS.—We are informed that Johnson Bros. & Faught, St. Elmo, Ill., and J. H. McCarthy & Reichardt, Little Rock, Ark., have been awarded the contract for constructing this company's line from Little Rock to Howe, Ind. Ter. Work is to begin at once and be completed before next fall. F. A. Molter, Ch. Engr., Little Rock, Ark.

CLEARWATER SHORT LINE.—This company was incorporated in Montana, Nov. 9, with a capital stock of $10,000, to build a line for the Northern Pacific Ry. Co. from the main line at Ainsworth, Wash., up Snake and Clearwater rivers over the Bitter Root Range and connecting with the main line near Missoula.

COLORADO & NORTHWESTERN.—Reports from Boulder, Colo., state that Day & Ryan have been awarded the contract for building a branch line to the B. & M. mine, and that work would be commenced at once. Work on the Bloomerville branch is also being actively pushed. J. S. Frankeberger, Ch. Engr., of Boulder.

COLUMBIA & KLICKITAT.—This company was incorporated in Oregon, Nov. 16, with a capital stock of $300,000, to construct a railway from Lyle to Goldendale. The incorporators are: E. E. Lyttle, D. C. O'Reilly and A. E. Hammond; principal office, Wasco, Ore.

COLUMBUS, LIMA & MILWAUKEE.—Andrew Bruon, Ottawa, Ohio (not A. Brown), informs us that he is the principal contractor for the construction of 40 miles of railway for this company between Lima and Defiance, via Gomer, Kalida and Continental, O. This piece of work will be completed this fall, but extensions are contemplated to bring the total mileage up to 314 miles. Between Lima and Defiance the rights of way have all been obtained and paid for and the grading practically completed; bridges and telegraph lines are also erected. A 70-lb. rail of 60-ft. length, furnished by the Lorain Steel Co., Lorain, O., is now being laid. The only work that Mr. Bruon wishes to sub-let is the loading of 50,000 to 60,000 yds. of gravel on cars with steam shovels, at his gravel pit, four miles east of Ottawa; proposals for doing this work are solicited. J. G. W. Cowles, Pres., Cleveland, O.; C. T. Hobart, Ch. Engr., Defiance, O.

DETROIT & LIMA NORTHERN.—The receivers of this company are said to have asked the U. S. Court for authority to spend $500,000 for the purchase of new rolling stock and the building of terminal and other improvements around Detroit. C. H. Roser, Ch. Engr. and Purchasing Agt., Detroit, Mich.

ESCANABA & LAKE SUPERIOR.—This company is reported to have been incorporated in Michigan, Nov. 17, to construct 60 miles of railway. Isaac Stephenson, Pres.; J. A. Van Cleve, Vice-Pres., both of Marinette, Wis.; W. E. Wells, Supt., Wells, Mich. This is apparently the same project as that promoted by the Escanaba River Ry. Co., which is at work building from Escanaba, Mich., to Republic, Minn., 60 miles, through a hard-wood and farming district.

GREAT NORTHERN.—Work has been commenced by Foley Bros., St. Paul, Minn., on the new cut-off from Coon Creek to Brook Park, thus shortening the distance between St. Paul and Duluth by 30 miles. The new line will be about 55 miles in length, and is expected to be completed by June 1.

GULF & SHIP ISLAND.—Reports state that construction work will begin on the extension of this road north of Hattiesburg, Miss., as soon as locations have been made. S. S. Bullis, Gen. Mgr.; J. B. Hatch, Ch. Engr., both of Gulfport, Miss.

INDO-CHINESE.—Press reports state that the French government has decided to authorize a loan of 27,000,000 francs for the purpose of establishing an Indo-Chinese railway system in connection with the Chinese systems.

IOWA CENTRAL & WESTERN.—L. M. Martin, Pres., Marshalltown, Ia., has stated that this branch company of the Iowa Central will construct a new line from Oskaloosa to Cordova, via Pella, Ia., and also a branch from Belmont to Algona, via Cornwith, Ia. Surveys have been begun.

MINNESOTA & IOWA VALLEY.—This company was incorporated in Minnesota, Nov. 14, with a capital stock of $50,000, to build from a connection with the Winona & Western Ry. at Sanborn, Minn., through Brown, Cottonwood, Watonwan and Martin counties, to the southern state line, a distance of about 70 miles. The incorporators are: J. M. Whitman, J. B. Redfield, Chicago; Edward C. Carter, Evanston, Ill.; W. A. Scott, John C. Stuart, St. Paul, Minn.

MINNESOTA & SOUTHERN.—This company was incorporated in Iowa, Nov. 19, to build a line from Sauk Center, Minn., south through Iowa, to connect the Great Northern with the Kansas City, Pittsburg & Gulf Ry. Pres., John S. Thompson, New York; Vice-Pres., William T. Smith, Des Moines; Treas., Robert M. Snyder, New York.

NEW YORK.—Bids are asked until Dec. 15 for work on the extension of the old Kinderhook & Hudson Ry., including 220,000 cu. yds. of earth excavation, 11,800 cu. yds. of rock excavation, 40 miles of track laying, 9 steel plate girder bridges, one steel viaduct, 1,900 ft. long, etc., as described in our advertising columns. Wm. G. Smith, Ch. Engr., Valatie, N. Y.

NEW YORK, WYOMING & WESTERN.—The Lackawanna Iron & Steel Co., of Scranton, is reported to have received a contract to furnish 7,000 tons of 95-lb. rails to be laid on this new line between Wimmers and the Delaware River. From Wimmers to Scranton, 12 miles, the tracks of the Erie & Wyoming Valley R. R. will be used. E. B. Sturges, Pres.; Edw. L. Jenks, Ch. Engr., both of Scranton, Pa.

RUTLAND-CANADIAN.—The directors of this company organized Nov. 21 by electing Frank R. Wells, of Burlington, Vt., president, and H. G. Smith, of Rutland, Vt., treasurer. Official action was taken authorizing the president to obtain surveys of different routes from some point in or near Burlington to the Canadian line, and report such surveys to the board for further action.

OREGON R. R. & NAVIGATION.—Reports from Portland, Ore., state that Seims & Coykendahl are the contractors for a 146-mile extension of this line from Wallula Junction up Snake River to Lewiston, Idaho. The Great Northern Ry. and the Northern Pacific Ry. Cos. are also said to contemplate new extensions in this locality as a result of competition. W. H. Kennedy, Ch. Engr., Portland.

ST. LAWRENCE & ADIRONDACK.—This new company proposes to build a line from the St. Lawrence River to North Creek, N. Y., following the Raquette River to its source, 100 miles. Dr. L. S. Putney, Pres.; H. G. Atwater, Secy.; J. G. McLeod, Treas., all of Norfolk, N. Y.

ST. LOUIS & OKLAHOMA CITY.—J. F. Hinckley, Ch. Engr., Sapulpa, Ind. Ter., informs us that this company has now completed its line between Sapulpa and Oklahoma City, a distance of 103.23 miles, and that regular train service is in operation between Oklahoma City and St. Louis, Mo., via St. Louis & San Francisco Ry.

SOUTHERN.—This company has had a survey made for an extension from Stevenson, Ala., to Chattanooga, Tenn., a distance of 28 miles. The latest survey contemplates a tunnel under Lookout Mountain to gain an entrance to Chattanooga without bridging the Tennessee River. It is said that the extension will be built at once. This will give the Southern an unbroken line between Chattanooga and Memphis.

WASHINGTON RUN.—Bennett & Talbott, Greensburg, Pa., are stated to have been awarded the contract for the construction of this railway, from Dayton station to Washington Run, Fayette county, Pa., 5¼ miles, for the Washington Coal & Coke Co. The contract price is about $100,000, which includes the completion of the road ready for the rolling stock. Work will be commenced at once. W. H. Brown, Pres., Conestoga Bldg., Pittsburg.; E. J. Taylor, Ch. Engr., McKeesport, Pa.

WEST BRANCH VALLEY.—A. E. Patton, Pres., Curwensville, Pa., informs us that locations have been made for this proposed line of railway, from Clearfield to Williamsport, Pa., 111 miles. Contracts have not yet been let and will not be ready for some time. The incorporation of this company was noted in our last issue. A. V. Hoyt, Ch. Engr., Philipsburg, Pa.

WHITE PASS & YUKON.—John Hislop, Box A, Skagway, Alaska, informs us that this company, operating the lines of the Pacific & Arctic Ry. & Navigation Co. and of the British Columbia, Yukon & British Yukon Ry. Transportation & Navigation Co., has completed the final location for the first 50 miles from Skagway and has made a preliminary survey from Skagway to Fort Selkirk. Most of the rights of way have been obtained, and the necessary capital for construction secured. The company does the grading under the supervision of the Pacific Contract Co., Ltd., and the employment agent is J. Heney, Seattle, Wash. Track is laid for 14 miles and will be at the summit of White Pass, 20 miles, by Dec. 1. The proposed route will be 312 miles in length. S. H. Graves, Pres., 1016 Chamber of Commerce Bldg., Chicago, Ill.; E. C. Hawkins, Ch. Engr., Dexter-Horton Bank Bldg., Seattle, Wash.

WISCONSIN, MICHIGAN & NORTHERN.—This company was incorporated in Michigan Nov. 17, with a capital stock of $130,000 and headquarters at Menominee, Wis. It is proposed to operate that portion of the Wisconsin & Michigan Ry. in Michigan, and to extend the line 16 miles through Menominee and Dickinson counties, the Wisconsin & Michigan not being able to take advantage of the Michigan law for the condemnation of property for its right of way. A map of the proposed extension has been filed with Railroad Commissioner Wesselius.

STREET AND ELECTRIC RAILWAYS.

RUTLAND, VT.—E. D. Blackwell, Montpelier, Vt., informs us that a charter has just been granted to the Lake Durand Power & Traction Co., but that the organization has not yet been completed. It is proposed to construct 25 miles of railway from Lake Durand to Brandon, Pittsford, Proctor and Rutland. Plans and specifications will be ready about Dec. 5.

HOLBROOK, MASS.—E. E. Chapman and others have petitioned this town for a franchise to construct a railway between Holbrook and South Weymouth, a distance of three miles.

QUINCY, MASS.—The council has passed an ordinance granting a franchise to the Boynton Bicycle Ry. Co. to build to West Quincy. Councilman Badger may be addressed.

LOCKPORT, N. Y.—It is reported that surveys have been completed for the proposed electric railway from Lockport to Olcott, and that some construction work will be done this winter if the weather permits.

MAMARONECK, N. Y.—The highway commissioners of Harrison, Nov. 23, granted to the Port Chester Electric Ry. Co. a franchise through that part of the town lying between Rye and Mamaroneck. The question of a franchise in Mamaroneck will be discussed at a public meeting held by the trustees on Dec. 7.

NEW YORK, N. Y.—Applications have been made to the city councils by the Third Ave. R. R. Co., 1119 3d Ave., and the Metropolitan St. Ry. Co., 621 Broadway, for franchises to build on the Boulevard, from Manhattan St. to 182d St., both companies using the same tracks but different slots. The Third Ave. R. R. Co. also applies for a line from 181st St. and Amsterdam Ave., east over Washington Bridge to Boscobel Ave., to Jerome Ave., there to connect with the Union R. R. Co.'s trolley, and for a line from 135th St. to Amsterdam Ave., also east over the viaduct to McComb's Dam Bridge, across the bridge to Jerome Ave., to connect with the Union Ry. Co.'s line. The Metropolitan St. Ry. Co. asks for extensions in the Boulevard from Manhattan St. to 182d St., and in 135th St., from Madison Ave. to 8th Ave.; also in 145th St., from the Harlem River to the Boulevard.—— The Union Ry. Co. asks for extensions over the Southern Boulevard and Boston Road to 200th St., to Jerome Ave.; also from 230th St. and Bailley Ave., to 231st St., to McComb's St.; also over Cedar Ave. and Sedgwick Ave. to Fordham Landing Road. A public hearing will be given on Dec. 2.

OSWEGO, N. Y.—Reports state that George B. Leonard and others are interested in the construction of a trolley line between Oswego and Syracuse.

ROME, N. Y.—Grading is reported to have been commenced on the proposed Utica Suburban St. Ry., a branch of the Utica Belt Line St. R. R. Co., which is to be built from Oriskany to Rome, about seven miles. Frank K. Baxter, Ch. Engr.

TROY, N. Y.—A public hearing will be given Dec. 12 to consider the application of the Troy City Ry. Co. for a franchise to extend its tracks on Mill St. C. Cleminshaw, Pres., 361 River St.

CAMDEN, N. J.—Press reports state that Walter N. Boyer, representing the promoters of the projected elevated electric railway to run from Atlantic City into Camden, has requested the council to withdraw the application for a franchise, and that the request has been granted.

IRVINGTON, N. J.—The North Jersey St. Ry. Co. proposes to extend its line from the present terminus in this place to the Hilton & Maplewood line. Extensions to Millburn are also projected. J. K. Corbiere, Pres., Newark, N. J.

LODI, N. J.—We are informed that the Sandford & Stillman Co., 26 Exchange Place, Jersey City, N. J., will commence work at once on the construction of the proposed line of the Saddle River Traction Co. from Passaic to Lodi, via Garfield, a distance of 2½ miles. Gilbert D. Bogart, Pres.; Wise & Watson, Engrs., both of Passaic.

PLAINFIELD, N. J.—The Plainfield St. Ry. Co. has petitioned the council for a franchise to extend its lines to Scotch Plains. T. Nevins, Pres.

JOHNSTOWN, PA.—The councils have granted a franchise to the Johnstown & Somerset Traction Co. to build through this city. The proposed route is from Johnstown to Geistown, Scalp Level and Windber, a distance of about eight miles. Morris Wolf, Pres., Johnstown.

WASHINGTON, D. C.—The Columbia R. R. Co. is now considering propositions for grading and equipment of a new section of overhead trolley line along Benning Road to the District line. The underground electric system will also be substituted for the cable on that portion of the road within the city. R. F. Baker, Pres., 1509 Florida Ave., N. E.

BIRMINGHAM, ALA.—Bids are being received by the Birmingham Traction Co., according to reports, for rails, cross-ties and other material for its proposed extension from Woodlawn to East Lake. A. T. London, Pres., 1st Ave. and 21st St.

VICKSBURG, MISS.—It is reported that S. R. Hughes, of Vicksburg, and J. C. Schaffer, of Chicago, have bought the electric plant in this city and that improvements to the same will be made, and an electric railway built, to cost about $100,000.

CARROLLTON, KY.—Press reports from this place state that a company has been incorporated, with $50,000 capital, to build an electric line from Warsaw to Milton and from Carrollton to English Station. Myron O. Baxter, Pres.; Jas. M. Gaumt, Vice-Pres.; Jas. S. Jett, Treas.

RICHMOND, KY.—Frank Adair and D. J. Hauss, Cincinnati, O., are said to be negotiating with the city for the privilege of constructing a system of electric street railways.

ZANESVILLE, O.—Press reports state that William Christy, Special Master, will sell this company's property in this city on Jan. 3.

DAYTON, O.—J. M. Wilson, Ch. Engr., Dayton, informs us that the surveys have been completed for the Dayton & Xenia Traction Co.'s proposed line from Dayton to Xenia, via Alpha and Trebeins, a distance of 16 miles, 3½ miles of which will be double tracked. Levi Weiskopf, Cincinnati, O.

EVANSVILLE, IND.—C. J. Murphy, of the Business Men's Association, informs us that nothing definite has yet been done towards the construction of the proposed line from Evansville to Tell City, etc., referred to in our last issue.

GREENFIELD, IND.—Chas. L. Henry, Anderson, Ind., and Nathaniel N. Morris have petitioned the commissioners of Hancock county for a franchise to build an electric line from Greenfield west to the county line, and thence to Indianapolis, to be known as the Indianapolis, Greenfield & Eastern Ry.——It is reported that the county commissioners have granted to Wm. C. Dudding and F. G. Banker, of Greenfield, a franchise to construct and operate an electric railway through the county. The promoters of the enterprise are said to contemplate running a line from Anderson to Indianapolis by way of this place.

JACKSON, MICH.—W. B. Joslyn, Supt., 223 River St., Ypsilanti, Mich., informs us that the Jackson, Clarks Lake & Brooklyn Ry. Co. has been incorporated, with a capital stock of $200,000, to construct an electric railway from Jackson to Brooklyn, via Vandercooks Lake, Eldred Station and Clarks Lake, a distance of 21 miles. Surveys have been made as far as Vandercooks Lake, 4½ miles, and the capital has been partly secured. Contracts will be let in the spring or before. Clark Cornwell, Pres., Jackson, Mich.

OWOSSO, MICH.—The Long Lake, Durand & Corunna St. Ry. Co. was incorporated Nov. 17, with a capital stock of $50,000, with $12,000 paid in; the main offices and large power station will be located in this city. F. J. Northway, of Durand; I. D. H. Ralph, of Owosso, and M. P. Nickels, of Corunna, Mich., are the stockholders.

CHARLESTON, ILL.—Henry Rawle, Ch. Engr., Anderson, Ind., informs us that the preliminary survey has been made and the right of way is now being secured for the proposed Charleston & Mattoon Electric R. R., from Charleston to Mattoon, via Loxa, 12½ miles. Forbes Holton, Pres., Anderson, Ind.

CHICAGO, ILL.—The proposition to make permanent the trolley system now in operation in the business district of the city was defeated in the council, Nov. 28.

KENOSHA, WIS.—J. M. Blatt, Supt. of Milwaukee, Racine & Kenosha Elec. Ry., Racine, informs us that this company intended to extend its line through this city, but as the franchise was vetoed the tracks now extend only to the north city limits, awaiting a franchise.

WICHITA, KAN.—The Wichita Ry. & IHuminating Co. was incorporated Nov. 19, with a capital stock of $500,000. The directors are: Ernest Rambeck, E. L. Martling, H. G. Landis, W. O. Church and George E. Spalton.

DENVER, COLO.—Reports state that the Denver City Cable and West End electric lines will be sold by United States Commissioner Hinsdale on Dec. 15.

KANSAS CITY, MO.—It is reported that the Central Electric Ry. Co., owned by the North American Trust Co. of New York, has surveyed a route for an underground trolley system to be operated in connection with the Northeast electric line. Roland R. Conklin is interested.

LOS ANGELES, CAL.—The Los Angeles Traction Co. has petitioned the council for a franchise to build a new line of street railway on 11th, Georgia, Sentous and Hoover Sts. W. S. Hook, Gen. Mgr.

SAN FRANCISCO, CAL.—Reports state that the San Francisco & San Mateo Electric Ry. Co. contemplates the construction of its 30th St. line, and also of extensive improvements to the power house. R. Baxter, Ch. Engr.

CUTNARA, VENEZUELA.—Press reports state that a French company has secured a concession from the Venezuelan Government to construct an electric railway 43½ miles in length between Cutnara and Cumanacad. This line is projected to open up Venezuela and British Guiana to commerce.

AUCKLAND, NEW ZEALAND.—W. Gentry Bingham, an English engineer, is reported to have received a concession to build an electric railway in the city of Auckland.

ELECTRIC LIGHT AND POWER.

BEVERLY, MASS.—Press reports state as follows: The committee, to whom was referred the matter of a change of electric-light contract and the matter of a municipal plant, will recommend the abrogation of the present contract, which has three years to run, and the adoption of a new contract for five years, which has been offered by the Beverly Gas & Electric Co., providing for 175 arc 1 200-c. p. lights to burn all night and every night, at 30 cts. a night. For lights over 175 a discount of 5% is to be allowed.

NEWPORT, R. I.—The Newport Illuminating Co. has applied for permission to furnish light, heat and power for seven years. The plant has been in operation for some time.

AKRON, N. Y.—Surveys have been made for a plant to cost about $5,000, inclusive of arc lights.

ONONDAGA VALLEY, N. Y.—The question of electric lighting is being considered by the Village Improvement Society. Elmer Clark, Pres.

ROMULUS, N. Y.—It is proposed to organize a company to build a plant for this place.

ST. REGIS, N. Y.—J. W. Webb writes us that H. E. O'Neil is to put in a plant. It is thought that the materials have not yet been purchased.

SEABRIGHT, N.J.—The Seabright Electric Light Co. has purchased a lot near the South Shrewsbury River upon which it will build the new power house.

MILL HALL, PA.—Arrangements are reported as about completed for a plant in this place. S. T. Henderson, Houtzdale, Pa., and Councilman Aaron Kyler may be addressed.

NEW HOLLAND, PA.—Eli M. Martin writes us that nothing will be definitely settled upon with regard to a plant before spring.

FREDERICKSBURG, VA.—T. McCracken, Chn. Com., writes us that the following bids were received Nov. 22 for furnishing and installing a plant of 80 2,000-c. p. arc and 75 double carbon arc lights, and 75 HP. water-wheel: Fort Wayne Electric Corporation, Fort Wayne, Ind., $11,649, and Samuel Kingsbury & Co., Baltimore, $11,944. No award will be made until the question of building a plant is voted upon by the people.

GAINESVILLE, GA.—James P. Edwards, Elec. Engr., Augusta, Ga., proposes to build a plant in this place. The plant will have a capacity for 1,000 incandescent lights. Arrangements for the construction will be begun as soon as 500 lights are subscribed for.

LAKE PROVIDENCE, LA.—An election will be held Dec. 15 to vote on the question of issuing $17,500 in 5% bonds for a plant and water-works.

SOMERVILLE, TENN.—Bids are asked until Dec. 15 for furnishing the materials and for constructing works and an electric light plant as stated in our advertising columns. Geo. C. Morgan, Royal Insurance Bldg., Chicago; E. R. Scruggs, Recdr.

OWENTON, KY.—J. M. Riley, of Bracken county, Ky., and W. E. Arnold, of Dayton, O., are reported as making arrangements for a plant.

RICHMOND, KY.—Frank Adams and D. J. Hamas, of Cincinnati, have been granted a franchise. Work will be begun at once, the plant to be completed in 90 days.

BRADFORD, O.—The electric light plant here, which has been shut down for some time, has been purchased and will be put in immediate operation by L. A. Dyer, of Bellefontaine, O., according to reports.

CLEVELAND, O.—Bids are asked until Dec. 21 for furnishing glass, etc., for 878 electric lamps for one year. Geo. R. Warden, Dir. Pub. Wks.

DRESDEN, O.—Thos. McGovern, of Sarahsville, O., it is stated, has received the contract for lighting the streets with arc lights.

NEW RICHMOND, O.—Bids are asked until Dec. 7 for furnishing the materials and for constructing a plant and water-works, as stated in our advertising columns. The plans and specifications are on file at the office of the Engineering News Publishing Co., 220 Broadway, New York. J. F. Witmer, Engr., Buffalo, N. Y.; L. F. White, Secy. Trustees.

GREENFIELD, IND.—The council has purchased the plant of the Greenfield Electric Light & Power Co. for $16,000.

FLINT, MICH.—It is stated that the People's Electric Light Co. will increase the capacity of its plant from 3,000 to 8,000 lights, at a cost of about $25,000.

MOUNT PLEASANT, MICH.—Bids are asked until Dec. 20 for furnishing and installing a plant at the Indian Industrial School here. R. S. Graham, Supt., Mount Pleasant; W. A. Jones, Comr. Indian Affairs, Washington.

ROYAL OAK, MICH.—Wm. Hilzinger, of Royal Oak, has submitted a proposition to light this town.

LITCHFIELD, ILL.—Bids are asked until 10 a. m., Dec. 8, for electric lighting or for furnishing the material and for constructing a municipal plant; population, 5,500. O. D. W. Gooch, Clk.

WINNETKA, ILL.—It is stated that the question of building a plant is being considered.

SAUK RAPIDS, MINN.—The question of granting a franchise for a water power plant to C. M. Hertig, St. Cloud, Minn., is being considered by the committee, according to reports. E. Cross, Chn. Com.

ST. PAUL, MINN.—Bids for lighting the streets and public places with 395 arc, 2,000 gas, and about 3,500 gasoline lights will be considered by the assembly Dec. 1 and by the aldermen Dec. 6. Matt. Jensen, Cy. Clk.

OCONTO, WIS.—The plant and planing mills of the Citizens' Water, Light & Fuel Co., were destroyed by fire Nov. 24 causing a reported loss of about $50,000. T. A. Pamperin, Mgr.

PIERRE, S. DAK.—The council is reported to have decided to put in a plant.

CARTHAGE, MO.—Chas. O. Harrington, Mayor, writes us that this place voted Nov. 22 in favor of issuing $25,000 in bonds for a plant. Bids will be asked as soon as plans and specifications are completed. The plant will have a capacity of 50 2,000-c. p. arc and 150 50-c. p. and 2,000 16-c. p. incandescent lights. Owen Ford, 710 Security Bldg., St. Louis.

LINCOLN, WASH.—The question of building a plant and water-works is being ronsidered.

RITZVILLE, WASH.—The council is reported to have granted a franchise for a plant and water-works.

COLTON, CAL.—Bids are asked until Dec. 19 for furnishing and installing lighting fixtures at the new court house. J. B. Parazette, County Clk.

PASADENA, CAL.—Bids are asked by the city trustees until Jan. 1 for furnishing the machines, etc., for installing a plant. The city will want to use about 105, 2,000 and 1,200 c. p. arc lights, etc.

SAN FRANCISCO, CAL.—Superior Judge Seawell has handed down a decision granting the Mutual Electric Co. permission to erect poles and to extend its lines upon the same terms granted to the San Francisco Gas & Electric Co.

HULL, QUE.—The committee has recommended the council to direct the city engineer to prepare plans for a water power plant.

ACTON, ONT.—This place has voted to build a plant at a cost of $6,000. The council will at once arrange for building the plant.

ST. THOMAS, ONT.—Percy Domville, Hamilton, Ont., it is stated, has been engaged to prepare plans, etc., for a municipal plant.

LINDSAY, ONT.—J. Alex. Culverwell and A. E. Ames, stock broker, Toronto, are interested in the proposed power plant at Fenelon Falls. Power will be furnished to this town, which has a population of about 7,000.

TORONTO, ONT.—C. H. Rust, Cy. Engr., writes us that no contract has yet been awarded for the proposed power plant, bids for which were opened Nov. 9. It is likely that the matter will remain in abeyance for some time.

WINNIPEG, MAN.—The aldermen are considering an ordinance authorizing the submission to the voters of the question of issuing $50,000 in bonds for a municipal plant.

CASCADE CITY, B. C.—We are informed that plans are not sufficiently advanced to give information regarding the proposed water power plant at this place. The head of water will be 150 ft.; available HP., 10,000. Wm. Anderson, Engr., P. O. Box 81, Cascade City.

SANTIAGO, CHILI, S. AM.—Press reports state that a syndicate composed of English and German capitalists is to take charge of the electric lighting of Santiago and of the electric railways in that city. Power is to be taken from the River Maipo. About $6,200,000 is invested in the enterprise, and work has already been commenced. The purchases for the undertaking are to be made in England, Germany and the United States at an early date.

BRIDGES.

RENSSELAER, N. Y.—Bids are asked until Dec. 6 for extending and laying out Washington St. and constructing an iron bridge over Mill Creek. C. A. Ryan, Cy. Clk.

BROOKLYN, N. Y.—Bridge Commissioner Shea was authorized Nov. 23 to advertise for bids for building two stone abutments for the Hamilton Ave. bridge, at a cost of $30,000. He has also been authorized to prepare plans, etc., for the construction of a bridge over the East River between the boroughs of Manhattan and Bronx.

OWEGO, N. Y.—The town board voted Nov. 19 in favor of constructing an iron bridge across Owego Creek to cost about $10,000. It is proposed to have an engineer prepare plans and to ask bids. The contract will probably not be let before spring.

STONY POINT, N. Y.—Geo. W. Aldridge, Supt. Pub. Wks., Albany, will soon ask bids for a new bridge across Minisceongo Creek, according to reports.

VALATIE, N. Y.—Bids are asked by Wm. G. Smith, Ch. Engr., Valatie, until Dec. 15 for the construction of nine plate girder bridges and one viaduct 1,900 ft. long, on the extension of the Kinderhook & Hudson Ry., as stated in our advertising columns.

CAPE MAY, N. J.—Wildwood, Anglesea and Holly Beach have subscribed $4,500 toward the building of a new bridge and turnpike from Five-Mile Beach to the mainland, according to reports.

BUTLER, PA.—Reports state that the grand jury has recommended the construction of a bridge over the Counoquenessing Creek. F. E. McQuistion, County Surv.

HARRISBURG, PA.—We are informed that a subway at Market St. is most likely to be constructed. The plans are yet in the hands of the committee. John E. Bickel, Chn. Citizens' Com.

PHILADELPHIA, PA.—Bids are asked until Dec. 13 for certain bridge work. Thos. M. Thompson, Dir. Dept.

WILKESBARRE, PA.—We are informed that the Grand Jury granted 46 bridges in various parts of the county; eight iron, and 38 stone arch, the cost varying from $2,000 to $90 and aggregating $23,235. The commissioners of Luzerne county have charge of the advertising. The contracts will probably be let about May or June of next year. H. S. Smith, Engr., 79 Coal Exchange Bldg., Wilkesbarre.

BALTIMORE, MD.—An ordinance is before the council to authorize the Old Bay Line to construct a bridge over Light St. from the wharf. John W. Sherwood, Mgr.

NORFOLK, VA.—Bids are asked until Dec. 28 for building the sub and superstructure for a steel highway and draw bridge over Smith's Creek, as stated in our advertising columns. W. T. Brooke, Cy. Engr.; J. D. Hofheimer, Chn.

DECATUR, ALA.—The county commissioners have awarded a contract to the Canton Bridge Co., of Canton, O., to erect a steel bridge over Town Creek, near Somerville, to cost $5,000.

CINCINNATI, O.—The county commissioners have received the lowest bids for a bridge over the Big Miami River from the King Bridge Co., Cleveland, O., at $49,900 for the superstructure, 465 ft. long, and from A. J. Wellman, at $34,798, for the substructure. Frank S. Krug, Engr.

CLEVELAND, O.—Steps will soon be taken for the construction of a bridge across the hollow between Kinsman and Holton Sts., to cost about $10,000; also necessary culverts to cost $3,000. Geo. R. Warden, Dir. Pub. Wks.

MUSKEGON, MICH.—The plans for the bridges over the Chicago & West Michigan Ry., at Myrtle and Amity Sts., submitted by the railway company, have been adopted by the council.

CHICAGO, ILL.—The sanitary district trustees have decided to build two bascule bridges to take the places of the Taylor St. city swing bridge an dthe Northern Pacific Ry. swing bridge between Taylor and 12th Sts. The estimated cost of replacing the old bridges with the bascule structures is $314,000. The moving of the tracks and equipment, with the interlocking switches, will cost $78,000, and of this the sanitary district will pay $60,000. The Scherzer Rolling Bridge Co. will sell the designs for the two bridges and will agree to superintend their construction for $38,000. When the designs are completed bids for the structures will be advertised for. The trustees propose to issue bonds up to the 1898 limit. They have authority to issue $190,000 more in bonds this year and it has been practically agreed by the committee to make the issue, according to reports.

MINNEAPOLIS, MINN.—Bids are asked until Dec. 9 for furnishing iron and steel work f. o. b. cars Minneapolis, for widening the stone arch bridge over the East channel of the Mississippi River; surety $1,000. F. W. Cappelen, Cy. Engr.; L. A. Lydiard, Cy. Clk.

ONSLOW, IA.—Bids are asked until Dec. 6 for constructing a steel bridge over the Maquoketa River in Washington township, according to reports. F. J. Sokol, Chn. Com.

GRAND ISLAND, NEB.—The county surveyor has measured the distance across the Platte River south of this city with a view to constructing a bridge between Hall and Hamilton counties. The bridges over the four streams will have to be about 300, 400, 600 and 700 ft. long, respectively.

FORT SCOTT, KAN.—Bids are asked until Dec. 9 for furnishing and constructing the stone work, excavation and fill for a bridge in Osage township. H. Frankenburg, County Clk.

MILAN, MO.—Bids are asked until Dec. 6 for constructing a combination bridge over Yellow Creek, Morris township, and for a combination township line, according to reports. Chas. W. Reeves, County Surveyor.

SARCOXIE, MO.—Bids are asked until Dec. 5 for furnishing the material and constructing a stone bridge on Center St. A. T. Houghton, Cy. Clk.

FOLSOM, CAL.—We are informed that plans have been prepared for repair of three bridges on the county road near this place, Sacramento county, and the construction of an alternate roadway, hillside work, at the same locality; estimated cost, $3,000. J. C. Boyd, Engr., Sacramento, Cal.

OAKLAND, CAL.—The board of supervisors awarded a contract Nov. 17 to Cotton Bros., at $92,500, for constructing the Webster St. bridge.

REDBLUFF, CAL.—We are informed that a contract has been awarded to the Pacific Construction Co., at about $20,488, for the construction of three bridges. Wm. F. Luning, County Surveyor.

WALNUT GROVE, CAL.—We are informed that J. C. Boyd, Sacramento, Cal., has been instructed to prepare plans for a draw bridge near this place.

CHATHAM, ONT.—Owen McKay, Ch. Engr., Lake Erie & Detroit River Ry Co., Walkerville, Ont., writes us that a contract for the substructure of the new bridge on the Erie & Huron Ry. Division, over the Thames River, has been awarded to the Engineering Contract Co., New York, N. Y. It will consist of two abutments and three piers built of concrete masonry on pile foundation. The superstructure will consist of two girder spans each 75 ft. in length and a draw span of 278 ft.; estimated cost, $25,000. Benjamin Douglass, Engr., Detroit, Mich.

PORTAGE DU FORT, QUE.—Reports state that the span between the piers of the Ontario end of the bridge crossing the Ottawa River at this place has been destroyed.

NEW WESTMINSTER, B. C.—Reports state that the Great Northern will bridge the Frazer River at this place on the extension of a line to Vancouver.

BUILDINGS.

BOSTON, MASS.—Bids are asked until Dec. 9 for furnishing laundry machinery for the Boston City Hospital; bond, $2,000. A. Shuman, Pres.

MANCHESTER, CONN.—A fire in this city, Nov. 29, destroyed the Cheney block causing an estimated loss of $50,000. W. B. Cheney and Harry Cheney are interested.

AUBURN, N.Y.—J. C. Stout and D. W. Barnes & Son, of Auburn, are reported to have been awarded the contract for the erection of a new 2-story freight house, 180×67 ft., at Clark and Washington Sts., for the Lehigh Valley R. R. Co.

BROOKLYN, N. Y.—The following contractors bid for the erection of an idiot pavilion, a nurse's home, two new wings, and alterations to the central top story of the King's County Hospital, Nov. 22; total cost about $150,000: L. A. Burke & Co., 401 West 59th St., New York; P. S. Carlin & Co., 289 4th Ave., New York; B. Gallagher & Son, New York; M. Gibbons & Sons, Brooklyn; F. J. Kelly & Sons, 220 Broadway, New York; Leonard Bros., Brooklyn; Wm. P. McGarry; Newman & Co., 355 Adams St., Brooklyn; Wm. H. Port, Brooklyn; Ryan & McFerran, 106 East 23d St., New York; T. B. Rutan; J. Wagner, New York.

BROOKLYN, N. Y.—Bids are asked by the department of public charities, foot of East 26th St., New York, until Dec. 13, a readvertisement, for the erection of one idiot pavilion, one nurses' home, two new wings and materials and alterations to the central top story of the Kings County Hospital, in this city. L. H. Voss, Arch., 65 De Kalb Ave., Brooklyn.

NEW YORK, N. Y.—Bids are asked by the bureau of yards and docks, Washington, D. C., until Dec. 10, for erecting a storehouse for equipment materials at the Navy Yard, New York. Mordecai T. Endicott, Ch. of Bureau.——Reports state that the Roman Catholic Orphan Asylum has purchased a large site at Fordham Heights and that new buildings will be erected thereon at a cost of about $1,000,000.——Plans have been filed by David R. Todd, 700 West End Ave., for a 6-story brick flat building at the Boulevard and 102d St., to cost $300,000. Archs. Neville & Bagge, 217 West 125th St.; by Emilio Vigna, 338 East 114th St., for a 6-story brick flat building on 92d St., near the Boulevard, to cost $75,000. Archs., Neville & Bagge; by Rosamond Herter, 503 Manhattan Ave., for four 5-story brick flat buildings at 145 to 153 East 54th St., to cost $120,000. Arch., F. W. Herter; by Kate C. Brown, 60 Liberty St., for a 7-story brick flat building on 95th St., near the Boulevard, to cost $90,000. Arch., C. Steinmetz.——The New York Steam Fitting Co., 211 Centre St., was awarded the contract, Nov. 21, for installing a ventilating and heating plant in Public School 164, at $17,147; and the Wells & Newton Co., 235 Eldridge St., for a ventilating, heating and electric lighting plant for Public School 169, at $29,952. Other bidders were: Baldwin Engineering Co., 103 Beekman St.; Frank Dobson, 218 East 42d St.; E. Rutzler, 178 Centre St.; Evans, Almirall & Co., 44 Dey St.; Blake & Williams, 262 Broadway.

NEW YORK, N. Y.—Bids are asked by the board of education at 585 Broadway, until Dec. 5, for alterations, repairs, etc., at Public Schools 79 and 121, Borough of Manhattan.

NORTH TARRYTOWN, N. Y.—The voters have decided to replace the present school building by a new structure, to cost about $50,000.

WHITE LAKE, N. Y.—John E. Gray, of White Lake, has the contract for erecting three new extensions, 32×50 ft., 24×50 ft., and 24×32 ft., to the Arlington Hotel. R. J. Nellis, Owner; Dodge & Morrison, Archs., 41 Wall St., New York.

BRIDGETON, N. J.—Bids are asked until Dec. 12 for erecting a brick and stone county hospital building for the insane. George Reeves, Chn. of Com., Millville, N. J.

ORANGE, N. J.—James Moran & Son, Newark, N. J., were awarded the contract, Nov. 28, for erecting the new 5th Ward school building at $31,991; and Norman S. Kellogg, Newark, for heating and ventilating, at $4,695.

PHILADELPHIA, PA.—Plans are being prepared by Harry Peale, Jr., Harrison Bldg., according to reports, for an 8-story brick, stone and steel building for Walter E. Herring, at 114 North 12th St., to cost about $50,000.—— Plans are being prepared for alterations to the St. Paul's Roman Catholic school building on Christian St. Edwin F. Durang, Arch., 1200 Chestnut St.——Preliminary plans are under way for a new public school building to be erected at 8th and Fitzwater Sts. Arch., J. D. Arnschutz, 713 Filbert St.

NORFOLK, VA.—McIlvain, Unkefer & Co., Pittsburg, Pa., were the lowest bidders for the construction (except heating apparatus, etc.) of a new public building at Norfolk, at $171,900; time, 16 months. Twenty-one other bids were received.

BIRMINGHAM, ALA.—Bids will soon be asked, according to reports, for the erection of a new hospital building for the Hillman Hospital at 4th Ave. and 18th St., to cost $30,000. Mrs. J. Morgan Smith, Chn. of Com.

CLEVELAND, O.—Bids are asked by the board of control City Hall, until Dec. 27, for furnishing the heating and ventilating apparatus and also one horizontal tubular boiler and setting, for the Children's Hospital at the City Infirmary on Scranton Ave. Wm. J. Akers, Director of Charities.

INDIANAPOLIS, IND.—The building of the Indiana Medical College, a department of the University of Indiana, was burned, Nov. 25, causing a reported loss of $40,000; insurance, $50,000.

CHICAGO, ILL.—Reports state that Marshall Field & Co. have plans prepared for a 7-story brick warehouse at Polk and Ellsworth Sts., to cost about $100,000. D. Burnham & Co., Archs., The Rookery.——Bids will soon be asked for erecting a new building, 115×90 ft., for the Second Congregational Church at Oak Park, to cost about $30,000. Patton, Fisher & Miller, Archs.——Four apartment buildings will be erected on Congress St., near Albany Ave., to cost about $45,000. Chas. W. Van Keuren, Arch., 84 La Salle St.——The Chicago Canal & Dock Co. expects to erect a 6-story building on Illinois St., near St. Clair St., to cost about $50,000.

EVANSTON, ILL.—Volney W. Foster is said to contemplate the erection of a 3-story building at Evanston, to cost $40,000. Harvey L. Page, Arch., 918 La Salle St.

PEORIA, ILL.—Bids are asked until about Feb. 1 for erecting a 12-room school building, 130×82 ft., in the 4th Ward; estimated cost, $40,000. Richardson & Hotchkiss, Archs., Dime Savings Bank Bldg.

SPRINGFIELD, ILL.—Sangamon county has voted to appropriate $100,000 towards remodeling the court house in this city. County Clerk Piper may be addressed.

JANESVILLE, WIS.—The Rock county board of supervisors has voted to erect a new jail building, at a cost of about $25,000. Plans and specifications will be ready in January.

GARNER, IA.—Bids are asked until Dec. 15 for the erection of a brick and stone court house for Hancock county; deposit, $800. H. B. Reed, County Audr., Garner; F. W. Kinney, Arch., Austin, Minn.

FLANDREAU, S. DAK.—Bids are asked until Dec. 15 for the construction of a steam heating plant at the Flandreau Indian Industrial School. W. A. Jones, Comr. of Indian Affairs, Washington, D. C.

KANSAS CITY, MO.—A fire in this city, Nov. 28, damaged the furniture establishment of Robert Keith & Co., at 11th and Grand Aves. Reported loss, $150,000 on the stock and $40,000 on the building.

ST. LOUIS, MO.—Building permits have been granted to the board of education for a 3-story school building at Hogan and Madison Sts., to cost about $69,000; a 2-story building at 4234 St. Louis Ave., to cost about $30,000; and for a building at Billon St. and New Manchester Road, to cost $15,000.

MENA, ARK.—Jos. P. Landes, Chn. of Comrs., informs us that bids are asked until Dec. 1 for the erection of a new court house for Polk county, to cost $8,000. Joseph Heidrick, Arch., Mena.

SEARCY, ARK.—The Galloway Female College building, at this place, was destroyed by fire, Nov. 27; estimated loss, $60,000; insurance, $30,000.

SAN FRANCISCO, CAL.—A fire in this city, Nov. 23, destroyed the Baldwin Hotel, at Market and Powell Sts., owned by E. J. Baldwin; reported loss, about $1,500,000; insurance, $50,000. The formation of a company to rebuild the block is contemplated.

PHOENIX, ARIZ.—We are informed that bids are asked until Jan. 10 for the erection of a capitol building for Arizona, to cost about $100,000; deposit, $5,000. F. H. Parker, Secy. of Bldg. Comn.; Jas. Reily Gordon, Arch., San Antonio, Tex.

BROCKVILLE, ONT.—Reports state that Geo. T. Fulford, of the Pink Pill Co., has let the contract for erecting a new residence, to cost about $75,000.

ST. THOMAS, ONT.—The following bids have been let in connection with the new city hall building: For metal work, A. B. Ormsby & Co., Toronto, $600; for heating, Charles Buell, $2,394; for plumbing, K. J. Allison, Toronto, $1,697. Arch., N. R. Darragh.

TORONTO, ONT.—It is announced that improvements will be made to the Rossin House Hotel, to cost about $150,000. J. H. Chewitt, Pres. of Rossin Hotel Co.

WATER-WORKS.

HAMPTON, N. H.—Wm. T. Ross, Engr. Hampton Water-Works Co., it is stated, will make surveys for works at once.

AMESBURY, MASS.—The Powow Hill Water Co. proposes to build a new reservoir. A report states that there is some discussion of the town buying the works, the present contract for supplying water expiring in a few years.

GRANVILLE, MASS.—The question of building works is again being considered.

CHURCHVILLE, N. Y.—The election called for Nov. 23 to issue bonds for works was declared illegal.

DOBB'S FERRY, N. Y.—The question of calling an election to vote on the proposition to build a reservoir at a cost of about $50,000 is being considered.

MONTGOMERY, N. Y.—The Greene County Water Co. has been incorporated with a capital stock of $20,000, by W. H. Cowan and Geo. Keesler, of Montgomery; W. R. Brook, of Almeda, N. Y., and C. A. Crowell, of Stamford, N. Y.

HEMPSTEAD (L. I.), N. Y.—A. R. Hart, W. S. Work and J. N. Williamson have applied for a charter for the Nassau Water Co

JAVA, N. Y.—It is proposed to build works here, according to reports.

STRYKERSVILLE, N. Y.—Tests for a water supply, it is stated, are being made.

NEW YORK, N. Y.—Bids are asked until Dec. 8 for furnishing for Brooklyn cast-iron water pipe, branches and special castings, and for Manhattan two new boilers at the 97th St. boiler house and for taking out four old boilers. Wm. Dalton, Comr. Water Supply, 150 Nassau St.

NORTH TONAWANDA, N. Y.—The aldermen have been petitioned to extend the water mains to the Ironton district.

ORANGE, N. J.—Bids are asked until Dec. 12 for constructing a dam, reservoir, engine, boilers, building, etc., in Millburn township, as described in our advertising columns. John J. Cuddy, Chn. Com.

CONNELLSVILLE, PA.—Press reports state that the question of purchasing the works at this place, owned by the American Water-Works & Guarantee Co., Pittsburg, Pa., will probably soon be voted upon by the people. The opportunity to purchase the works expires this year.

DARBY, PA.—The contest between this place and the Spring Water Co., Swarthmore, Pa., in regard to whether the town may build works will be called in the court in January. Population (1890), 2,972.

PITTSBURG, PA.—The Harman Water Co. and the Springdale Water Co. were incorporated Nov. 28, each with a capital stock of $1,000 of which $100 is paid in. The former company will operate in Harman township and the latter in Springdale township, Allegheny County. Incorporators, John F. Miller, Treas., East Pittsburg, Pa.; C. W. Michael, Pittsburg; J. S. McGinley, Springdale, and C. A. Rowan, Parnassus, Pa.

WEST UNION, W. VA.—Press reports state as follows: On Nov. 17, J. V. Blair, attorney for the town in the water-works case, received notice from J. A. Holley, clerk Supreme Court of Appeals, that the decision of the lower court had been confirmed in that case. This is a victory for those who favor water-works. Bids for building the works to cost about $6,000, were asked for a year ago, at which time G. W. Bland was Mayor. Population, 600.

SPARTANBURG, S. C.—J. M. Connor, it is stated, has been appointed receiver for the Spartanburg Water-Works Co.

GAFFNEY, S. C.—Bids are asked until Jan 3 for building the proposed works, according to reports. Frederick Minshall, Engr., 150 Nassau St., New York. In June, 1897, the Mountain View Land & Water Co. was incorporated to build works; capital stock, $4,500. Chas. M. Smith was interested. A. N. Wood may be addressed.

M'COMB CITY, MISS.—J. Dock Harrell, Cy. Clk., writes us that the Ruemmell & Seibert Refrigerating Machine Co., St. Louis, Mo., was awarded the contract for building the works at $38,920.

LAKE PROVIDENCE, LA.—An election will be held Dec. 15 to vote on the question of issuing $17,500 in 5% bonds for works and an electric light plant. R. L. Hill may be addressed.

HILL CITY, TENN.—It is stated that the Chattanooga Co., Ltd., Chattanooga, Tenn., is reconsidering the feasibility of building works, the construction to be begun in a short time. It is proposed to bring the water from Stringer's Ridge. The stand pipe will be built on a hill near Vallombrosa. Estimated cost, $25,000. H. C. Beck, of the company, Chattanooga, may be addressed.

GALLATIN, TENN.—Walter G. Fitzpatrick, Jackson, has been engaged to prepare plans for works. The water supply will be from the Cumberland River, with filter, elevated tank and distribution system. J. W. Blackmore, Chn.

FAYETTEVILLE, TENN.—It is reported that W. G. Fitzpatrick, Jackson, Miss., has been awarded the contract for building the proposed works. The supply will be received from Wells Hill four miles distant. Pipe laying, etc., will not begin before next year.

SOMERVILLE, TENN.—Bids are asked until Dec. 15 for furnishing the materials and for constructing the proposed works and electric plant, as stated in our advertising columns. G. C. Morgan, Engr., Chicago; T. B. Yancey, Mayor; E. R. Scruggs, Recdr.

LOUISVILLE, KY.—Bids are asked until Dec. 7 for placing six 6-in. hydrants. T. P. Craig, Secy. Bd. Pub. Wks.

GALLIPOLIS, O.—The trustees of the State Hospital have awarded the following contracts for works at the hospital here: Pumps, Henry R. Worthington, New York, $4,864; air compressors, Ingersoll-Sergeant Drill Co., New York, $785; air lifts, the same, $940; reservoir of 800,000 gallons, Geo. M. Snyder, Columbus, O., $7,998. Dr. H. C. Rutter, Gallipolis, and Geo. McCook, Steubenville, O., are trustees.

YOUNGSTOWN, O.—Press reports state as follows: The trustees on Nov. 22 took the initial steps in a project that will, if indorsed by the people, cost about $250,000 within the next year in securing purer water. The present source of supply is the Mahoning River, into which is drained the sewage of a number of towns together with a considerable portion of the sewage of this city. It is now proposed to acquire certain territory constituting the water shed of Mill Creek, and by a series of connecting storage reservoirs utilize its water hereafter. The proposition for the issuance of bonds for the purpose will be submitted to the voters in April. D. N. Simpkins, Sec., writes us that it is not known when anything will be done. W. S. Hamilton, Supt.

CHEBOYGAN, MICH.—At the election Nov. 8 this place voted to issue $7,000 in bonds for a 3,000,000 gallon air compressor, sinking a 10-in. well, etc., for a better water supply. Estimates, etc., for these improvements are wanted at once. Geo. N. Case, Cy. Clk.

SAGINAW, MICH.—Local papers state that the aldermen have voted to put in five miles of cast-iron water pipe in place of the wooden pipe in the West Side. Alderman Auschutz and Superintendent Weale may be addressed.

BOWEN, ILL.—The question of building works is being considered, according to reports.

ELKHART LAKE, WIS.—At the election Nov. 16 this place voted in favor of issuing $5,000 in bonds for works.

SHEBOYGAN, WIS.—W. D. Cockburn, Supt. City Water Co., writes us that the Nordberg Mfg. Co., Milwaukee, Wis., is building the new 8,000,000 gallon pump.

MARKESAN, WIS.—H. P. Friday writes us that no steps have yet been taken toward securing works, reported last week. Population, 550.

OSAGE, IA.—G. H. Merridith, Cedar Rapids, Ia., has completed plans for works at Osage, to cost $28,000. The works, it is stated, will have a 1,000,000-gallon pump, operated by gasoline, a 250,000-gallon reservoir and an 80,000-gallon tank, set on a steel tower 110 ft. high. There will be $16,000 worth of piping, of which 1,420 ft. will be 10-in., 4,320 ft. 8-in., 17,290 ft. 6-in. and 6,000 ft. 4-in.

DUBUQUE, IA.—C. N. Berg, Mayor, writes us that nothing has been done towards purchasing the works, except to give the Dubuque Water Co. the required six months notice of intention to purchase.

BERMIDJI, MINN.—An election will be held Dec. 6 to vote on the question of issuing $7,000 in bonds for works, according to reports.

CHILLICOTHE, MO.—The pumping station of the Chillicothe Water, Gas & Electric Light Co., it is stated, was partly destroyed by fire Nov. 18.

STANBERRY, MO.—W. A. Erwin, Mayor, writes us that this place has voted to issue $3,000 in bonds for a wooden tank and steel tower for the works.

DENVER, COLO.—We are informed that J. B. Hunter, Cy. Engr., has made a report to the council on the feasibility of constructing new works. The report is now in the hands of the board of public works, whose duty it is to take the initiatory in recommending the issuance of bonds.

LINCOLN, WASH.—The question of building works and an electric light plant is being considered.

NEW WHATCOM, WASH.—J. H. Thomas is reported to have been awarded the contract for constructing a supply main from Lake Whatcom to this city at $19,881.

RITZVILLE, WASH.—The council is reported to have granted a franchise for works and a light plant. The city already has municipal works.

SEATTLE, WASH.—The council on Nov. 23 accepted the bid of Gahan & Byrne, 4209 South Halsted St., Chicago, Ill., for the construction of the Cedar River water-works addition at $1,238,622, according to reports. The following comprise the bid: Certified check, $62,000; constructing headworks on Cedar River, $31,692; constructing pressure pipe from headworks, $812,292; High service reservoir at city park, $113,913; Low service reservoir, Nagle's Addition, $122,656; Metal work for 30 × 60 ft. stand-pipe on Queen Anne Hill, $7,867; concrete work for Queen Anne standpipe, $13,007; pumping main, $34,874; wooden stave and steel pipe line to reservoirs, $16,249; waste pipe from high service reservoir to Lake Union, $5,437; connections of low service reservoir distribution system and Tenth Ave. sewer, $33,161; changing Cedar River channel and connecting with Swan Lake, $47,476.

TACOMA, WASH.—The question of securing an increased water supply from the Maplewood Springs is being considered.

WALLA WALLA, WASH.—The supreme court, Washington, D. C., has affirmed the decision of the district court in Walla Walla against the city's building municipal works. The case has been in the courts since 1893, in which year the city voted to issue $160,000 in bonds for works.

SANTA BARBARA, CAL.—The committee has recommended that the city postpone issuing $50,000 in bonds for extending the works. N. B. Smith and J. B. Wentling are on the committee.

SAUSALITO, CAL.—It is stated that a new water supply will be secured for this city by a company, now being organized, from Lake Lagunitas, belonging to the Marin County Water Co. A. Borel and A. W. Foster, Pres. Marin County Water Co., are interested. John H. Dickinson and A. Sylva, Town Trustees.

WHITTIER, CAL.—Walter E. Butler, Cy. Clk., informs us that bonds were carried at the election on Nov. 22 by a vote of 235 to 33. About $20,875 will be used to buy the wells and the old system, and $19,225 to construct new works. Preliminary plans have been made by Burr Bassell, Los Angeles, Cal.

RENO, NEV.—Bids are asked until Dec. 12 for the purchase of $130,000 of 6% bonds for the proposed works. (Postponement from Nov. 12). F. B. Porter, Clk.

LIVERPOOL, N. S.—The council has decided to build works and an electric light plant at a cost of about $31,000, according to reports. I. V. Dexter may be addressed.

BRANTFORD, ONT.—Fred. W. Frank, Secy. Bd. Water Comrs., writes us that the city may want to purchase in the near future a new 5,000,000-gallon pump and extend the galleries for collecting water from springs. T. Harry Jones, Cy. Engr.

WINNIPEG, MAN.—Mayor Andrews is reported to have received a cablegram from the London owners of the Winnipeg water-works accepting the offer of the city to purchase the works for $237,500.

VANCOUVER, B. C.—Bids are asked until Dec. 14 for furnishing cast-iron water pipe, steel riveted pipe, hydrants, valves, etc., for extending the works, according to reports; estimated cost, about $75,000. Thos. McGuigan and T. H. Tracy, Cy. Engr., may be addressed.

VICTORIA, B. C.—The council is reported to have appropriated $12,000 for extending the water mains in Pandora St.

HAVANA, CUBA.—Jas. B. Clow & Son, Lake and Franklin Sts., Chicago, Ill., have been awarded the contract for furnishing the materials and for extending the water-works in this city at $29,523.

BELEM (PARA), BRAZIL.—Bids are asked until March 15 for the transfer by the government of the state of Para of the exclusive right for 60 years (to be extended under certain conditions for further term of 10 years) to supply Belem, the capital, with potable water. The transfer will include certain lands, machinery, plant and other material in use in the present works or in stock. (Postponement from Nov. 10.) Population, 60,000. Further information may be had on application to the Brazilian Consulates and Vice-Consulates at London, Eng.; at Berlin, Germany; and at Washington, D. C., and 22 State St., New York.

SEWERAGE.

NEW BRITAIN, CONN.—Samuel M. Gray, Providence, R. I., has submitted a report for improving the system of this city. Aug. Voigt, S. H. Stearns and Edgar H. Beach, Comrs.

ALBANY, N. Y.—Bids are asked until Dec. 5 for constructing 15 and 10-in. pipe sewers in two streets. T. J. Lanahan, Clk. Bd. of Contract.

JAMAICA (L. I.), N. Y.—The department of arrears and assessments is to prepare a map for the assessment of this district for the purpose of building a sewage disposal plant to cost about $50,000. About 26 miles of sewers have been built but they cannot be used until the disposal plant is constructed.

SYRACUSE, N. Y.—Bids are asked until Dec. 5 for constructing a 15-inch pipe sewer in Renwick Place from Almond St. to Renwick Ave., a 15-inch pipe sewer in Ulster St. from Avery Ave. to Myrtle St., and a 12-inch pipe sewer in Avery Ave. from Ulster St. to Schuyler St. M. Z. Haven, City Clerk.

PHILADELPHIA, PA.—Bids are asked until Dec. 13 for constructing main and branch sewers, etc. Thos. M. Thompson, Dir.

SCRANTON, PA.—Bids are asked until 7:30 p. m., Dec. 1, for constructing sewers in Section C, Fifth District. M. T. Lavelle, Cy. Clk.

STEELTON, PA.—The construction of a system is proposed, according to reports. H. H. Campbell, Pres. Council, and Councilman Freeland may be addressed.

WILLIAMSPORT, PA.—The committee to which was referred the ordinance for the relief of Grafius Run has decided to report negatively to councils the project to build a 5-ft. sewer in Laurel St. to the river, at a cost of $20,000. Instead it was decided to recommend to build a 10-ft. sewer in Locust St. to the river.

ALEXANDRIA, VA.—The council has directed the mayor to appoint a committee to investigate the question of making changes in the sewers emptying into Hunting Creek, near which the water supply is received.

NEWNAN, GA.—This place is reported to have asked the legislature for permission to build a system.

NEW ORLEANS, LA.—An election will be held to vote on the question of a tax of 2¼ mills for a system and other permanent improvements. The system, it is estimated, will cost about $6,000,000. Councilmen Sidney Story, Brittin and Dreyfous may be addressed.

INDEPENDENCE, IA.—It is stated that the council has voted to have plans for a system prepared. A. D. Gurnsey, Cy. Engr.

TOLEDO, O.—The sewer committee of this city is arranging for the construction of a sewer in several streets. L. P. Harris, Cy. Clk.

NEWTON, KAN.—The Newton Improvement Co. is making surveys for extending the system.

ST. LOUIS, MO.—An ordinance authorizing the Rocky Branch Sewer District No. 1 was approved by the Board of Public Improvements Nov. 22. The district is bounded by Natural Bridge Road, Kossuth, Fair and Taylor Aves., and is estimated to cost $37,000.

BISMARCK, N. DAK.—Press reports state that a system will be built in the spring.

INDEPENDENCE, MO.—Bids are asked until Dec. 13 for the purchase of $75,000 in bonds for the proposed system. Population, 8,000. S. H. Woodson, Mayor; S. A. Sullivan, Cy. Clk.; H. H. Pendleton, Cy. Engr.

MACON, MO.—An election will be held Dec. 6 to vote on the question of issuing bonds for a system to cost about $23,000.

LITTLE ROCK, ARK.—Bids are asked until Dec. 12 for the construction of 8,400 ft. of sewers in this city. W. R. Griffith, Secy. of Sewer District No. 25.

CLEBURNE, TEX.—Jack Steele, of Williamson county has been awarded the contract for constructing and maintaining for 50 years, a system for the court house, jail and market place at $5,000.

DENVER, COLO.—Bids are asked by the board of public works until 1 a. m., Dec. 2, for constructing the North Denver sewer; check, $500.——H. C. Lowrie, Engr. Bd. Pub. Wks., writes us that a bill for an ordinance ordering Capitol Hill Storm Sewer District No. 1, to cost about $1,000,000, on plans, etc., previously adopted by the board of public works, was unanimously passed by the Supervisors Nov. 8, and now goes to the Board of Aldermen requiring 12 out of 15 votes. It then must be advertised (for bids) at least 10 days locally. The first letting will be for about $400,000 worth of the work.

SEATTLE, WASH.—The City Engineer is preparing plans and specifications for two sewers. The first is known as the East Republican sewer and is estimated to cost $29,000. The second is known as the East Denny Way system and is to cost about $44,000.

SPOKANE, WASH.—Councilman A. W. McMorrain, of the 4th Ward, is urging the construction of sewers in that ward.

BAKERSFIELD, CAL.—It is proposed to construct a system at a cost of about $100,000.

GRASS VALLEY, CAL.—Bids are asked by the clerk of the board of trustees until Jan. 10 for the purchase of $50,000 of bonds for the proposed system. Mayor Parsons and Trustee Pattison may be addressed.

NEVADA CITY, CAL.—T. H. Carr, Cy. Clk., writes us that the city is taking the first steps towards submitting to the voters the question of issuing bonds for a system.

SAN FRANCISCO, CAL.—The Sunset District Improvement Club has asked the supervisors to build certain sewers in Sunset District at a cost of $35,000.

HULL, QUE.—Press reports state as follows: The Stadacona Water, Light & Power Co., of Montreal, has submitted to the council the following propositions with regard to the construction, maintenance and working of a system for the city: The company asks for a franchise to maintain such a system for 40 years and an exemption of taxation; after 40 years the system to belong to the city. If Hull should desire to purchase the system before that time the company would be willing to turn it over provided the city pay an additional cost of 20%. If the corporation is willing to adopt the proposition the work can be completed before Dec. 1, 1899.

HONOLULU, H. I.—It is stated that bids for $300,000 of Hawaiian Government bonds, authorized by the last legislature for the purpose of making public improvements, were recently opened. It was expected that the amount would be subscribed for, but the event proved otherwise. There were bids for less than $200,000 worth. All of these were at par or higher, however, and it is believed that the whole amount can be yet disposed of. W. G. Irwin bought $100,000 worth. The government is anxious to proceed with the sewerage and drainage systems of Honolulu, which was authorized by the last legislature. Plans for it have already been made. The entire cost will be about $250,000.

CALLAO, PERU, S. AM.—Bids are asked by the municipal council until Jan. 15 for furnishing the materials and for constructing the proposed system. The system will consist of 4,819 ft. of main sewer, 5,945 ft. of secondary sewers, and 35,642 ft. of drains; also a cast-iron outlet pipe into the sea and a number of inspection wells, etc. The estimated cost is $126,042. It must be completed within three years. A bonus will be given for earlier completion, and a fine incurred if the stipulated period be exceeded. Materials for construction will be admitted into the country duty free. We are informed that the work is to be paid for in three annual instalments, secured secondary upon the whole revenue of the city, and primarily upon the proceeds from the new sewerage tax, which is estimated as producing about $30,000. Plans and specifications, in Spanish, may be seen at the office of the National Association of Manufacturers, The Bourse, Philadelphia, Pa.

GARBAGE DISPOSAL—STREET CLEANING

NEW YORK, N. Y.—Bids are asked until Dec. 9 for the removal of snow and ice from the streets, avenues and public places in Manhattan and Bronx and the unloading and discharge of same at the several dumps or other places, designated by the commissioner of street cleaning, during the period between the date of execution and April 15. F. M. Gibson, Deputy Comr. of Street Cleaning, 346 Broadway, Manhattan.

CAMDEN, N. J.—M. V. Blackwell has contracted to haul all garbage from the crematory here to a place in Pensanken township at $6.00 per week.

ERIE, PA.—The American Reduction Co. has made a proposition to this city for the erection and equipment of a garbage plant. Kraft & Walther also submitted one in regard to entering into an extensive contract for the collection of its garbage.

SAVANNAH, GA.—Commissioner of Public Works Willink, it is stated, has asked that an appropriation of $46,248 for a new crematory, $63,714 for the street department, $26,873 for the scavenger department and $8,420 for an odorless excavating machine, be made for next year.

CLEVELAND, O.—Bids are asked until Dec. 7 for clearing the catchbasins in the city for one year. Geo. E. Warden, Dir. Pub. Wks.——No bids were received by the board of control Nov. 21 for street cleaning. New specifications are to be received at once and new bids asked.

SAN FRANCISCO, CAL.—Reports state that the garbage from this city will be taken into San Mateo county and consumed by the California Reduction Works.

STREETS AND ROADS

CHATHAM, MASS.—At the town meeting, Nov. 21, it was voted to appropriate $20,000 for the improvement of roads and for the purchase of a stone crushing plant.

SHARON, MASS.—The town board has voted to appropriate $2,000 for road work.

ROCHESTER, N. Y.—Edwin A. Fisher has about completed plans for the paving and sewering of South Fitzhugh St. from West Main to Spring St., estimated cost, $11,000. Bids will be asked some time next week, according to reports.

BUFFALO, N. Y.—Bids are asked by the park commissioners until Dec. 1 for repairing and maintaining about 132,347 sq. yds. of asphalt pavement, for five years.

SYRACUSE, N. Y.—A contract for paving Seymour St., from Oswego to South Geddes Sts., has been awarded to the Asphaltina Construction Co. at $19,459.

ONEIDA, N. Y.—A proposition is before the village trustees to pave Main St., from Lenox Ave. to Seneca Ave., to have a 42-ft. roadway, to cost about $60,000.

HOBOKEN, N. J.—The council has awarded a contract to the Utica Asphalt Co., at $13,008, for paving on Fifth St. and Park Ave., and to the New Jersey Mexican Asphalt Co., at $10,262, for paving on three streets.

HOBOKEN, N. J.—Bids are asked until Dec. 21 for the improvement of Court St. between Ferry and Seventh Sts. M. V. McDermott, Cy. Clk.

OAKLAND, N. J.—A special election will be held Dec. 6 in Franklin township to vote upon the question of bonding the township for $75,000 for the construction of macadam roads.

ANNAPOLIS, MD.—Bids are asked until Dec. 3 for building shell roads. Alton R. Arnold, Road Comr.

BALTIMORE, MD.—Chas. E. Wright, Councilman, has introduced an ordinance to pave O'Donnell St. with sheet asphalt, between Boston and Pautuxent Sts., at a cost of $22,000, and from Pautuxent St. to the eastern city limits, to cost $25,000.——An ordinance to pave Bush St. and appropriate $20,000 for the work has been approved by the board of estimate.

BALTIMORE, MD.—The council committee on highways has favorably reported the measure for paving with sheet asphalt and binder, Gough St. from Broadway to Patterson Park; the present cobblestone surface to be used as a base instead of concrete; estimated cost, $20,000.

JACKSONVILLE, FLA.—Bids are asked by the board of public works until Dec. 15 for furnishing and constructing about 22,000 sq. yds. of brick paving or about 1,250,000 brick, curbing and constructing sidewalks on Main St., for a distance of 4,290 ft.

NEW ORLEANS, LA.—The Belden & Seely Asphalt Paving Co. has been awarded a contract for paving Canal St. The itemized bids were given in our issue of Oct. 20.

CARLISLE, KY.—Geo. R. Martin, County Surveyor, writes us that no steps have yet been taken to award contracts for constructing pike roads, for which $40,000 was authorized Nov. 8. John W. Henry, County Road Comr.

LOUISVILLE, KY.—Bids are asked until noon Dec. 2 for grading, curbing and asphalt paving on portions of 11 streets. Chas F. Grainger, Bd. Pub. Wks.

BOWLING GREEN, KY.—The Warren County fiscal court has adopted a resolution providing for the purchase of the pikes of the county, from the stockholders, by Dec. 10. The roads will cost about $80,000.

BRIDGEPORT, O.—John A. Fawcett, Village Clk., writes us that the village will in the spring lay about $20,000 worth of paving. There will be about two miles of paving to be laid on old macadam. The necessary curbing including about three miles of old curb to be reset, will be put down this winter. Engrs., Hoge & Hicks, Wheeling.

CINCINNATI, O.—Bids are asked until Dec. 6 for brick paving on Marquis Ave. and until Dec. 20 for macadamizing on Paradrome St. Geo. H. Spellmire, Clk. Bd.

TOLEDO, O.—The council has awarded a contract to Geo. H. Bodette, at $4,740, for paving on Eastern Ave. with Nelsonville blocks and to W. J. & J. J. McMahon, at $2,882, for paving 21st. St. with Buckeye blocks.

DECATUR, IND.—Bids are asked until Jan. 5 for constructing about 17¼ miles of macadam roads in Washington township. We are informed that the work will be let in three separate contracts. W. B. Fulk, County Surveyor.

HAMILTON, O.—Bids are asked until Dec. 19 for paving Second St., from Central Ave. to Black St., with asphalt or brick. M. O. Burns, Cy. Clk.

ST. JOSEPH, MO.—The question of paving Clinton Ave. for three blocks, at a cost of about $10,000, is being considered by the council. F. A. Travis, Mayor.

BRAZIL, IND.—Bids are asked until Dec. 14 for constructing about 19 miles of gravel roads in Brazil, Jackson and Posey townships. Geo. Siegelin, County Comr.; Thos. Philips, Audr.

QUINCY, ILL.—The bids received Nov. 22 for constructing the proposed Missouri Road; estimated cost, $12,000, have been rejected on account of being too high. F. A. Grover, County Engr.—The board of local improvements has decided to construct about eight miles of paving next year, on portions of 20 streets.

TERRE HAUTE, IND.—The county commissioners awarded a contract Nov. 22 to W. C. Dorsey, Terre Haute, at $37,555, for constructing 16 miles of gravel roads in Nevins township and to Joseph E. Hart, Vevay, Ind., at $29,000 for 14 miles of gravel roads in Linton township.

GRINNELL, IA.—The question of paving the principal business streets is being considered.

BEAUMONT, TEX.—Bids are asked until Dec. 15 for paving portions of Travis, Crockett and Pearl Sts., about 12,000 sq. yds., with brick, asphalt and creosoted blocks, on 6-in. concrete foundation. D. P. Wheat, Mayor. L. E. Beadle, Engr.

AUBURN, CAL.—County Supervisors Hayford and Mariner have been appointed a committee to investigate the cost of purchasing a traction engine and rock crusher.

SACRAMENTO, CAL.—J. C. Boyd, County Surv., writes us that he has prepared plans for the macadamizing of 15,000 sq. yds. at an estimated cost of $7,000; including the grading of a roadway 50 ft. wide, constructing drains, and macadamizing a central strip 16 ft. wide by 8 ins. deep.

SAN RAFAEL, CAL.—Bids are asked until Dec. 5 for macadamizing. Geo. L. Richardson, St. Supt.

MANUFACTURING PLANTS.

EAST CAMBRIDGE, MASS.—A fire, Nov. 21, destroyed the pork packing establishment of John P. Squire & Co.; loss, $80,000.

NORWICH, CONN.—It is reported that J. B. Martin & Co., silk manufacturers, Lyons, France, will establish a branch factory at this place.

BROOKLYN, N. Y.—Reports state that the Kings County Refrigerating Co. will erect a 7-story cold storage warehouse and refrigerating plant, costing about $200,000, on Hall St., near Flushing Ave. Robert Hewitt, Ethan Allen Doty, Jas. J. Phelan, Allen F. Cook and Edward L. Nicoll are said to be interested.

COXSACKIE, N. Y.—It is reported that a new collar and shirt manufacturing company will erect a factory here; capital, $25,000. Edward J. Miller and William P. Hall, of Troy, and E. W. Williams and Thos. F. Gary, of Hoosick Falls, N. Y., are interested.

TROY, N. Y.—Enigh & Lobdell, of this city, according to reports, will erect a 5-story stone factory building, 90 x 110 ft., on Center Island, Green Island, to cost from $40,000 to $50,000.

UTICA, N. Y.—The Capron Knitting Mill Co., of New Hartford, N. Y., contemplates erecting a 4-story brick mill on Whitesboro St.

HOBOKEN, N. J.—Lehmann & Raudnitz will erect a large factory building at Ferry St. and Willow Ave., according to reports.

ELWOOD CITY, PA.—Reports state that L. F. Smith and S. H. Marks, Beaver, Pa., will erect a glass factory here.—The American Weldless Tube Co. contemplates the erection of a billet piercing plant at this place or Greenville, Pa.

PHILADELPHIA, PA.—The Baldwin Locomotive Works, at 15th and Hamilton Sts., are said to be receiving bids for a 2-story brick and iron building, 100 x 170 ft.

PITTSBURG, PA.—Jones & Laughlins, according to report, will make extensive improvements to their plant at Brownstown. Willis L. King, Gen. Mgr.

READING, PA.—The Cold Storage Co., according to reports, will erect a plant on 9th St., near South St.

BALTIMORE, MD.—The Carr-Lowrey Glass Co., of Baltimore, informs us that it is receiving bids for the construction of a new plant, but have done nothing as yet towards awarding contracts. Jackson C. Scott, Arch., Baltimore.

CLARKSBURG, W. VA.—The Consumers' Ice Co. will erect a refrigerating plant, costing about $15,000, at this place. F. M. Staunton, Charleston, W. Va., and Camden Thompson, Huntington, W. Va., are interested.

FLORENCE, ALA.—Eugene Zimmerman, Cincinnati, O., and B. F. Nichols, Bessemer, Ala., are reported to have purchased the Philadelphia furnace at this place; work will begin soon.

COLUMBUS, O.—The Wolfe Bros. Shoe Co., of this city, has increased its capital stock from $150,000 to $200,000, in order to enlarge its factory. R. F. Wolfe, Pres.; H. P. Wolfe, Secy.

SALEM, O.—Plans have been completed for a $40,000 pottery. Morris French, Cy. Engr., may be addressed.

NILES, O.—The Thomas Furnace Co. has been reorganized with a capital of $100,000 by J. M. Thomas, Patrick Sheehan and others. It is said that the old Thomas plant will be enlarged.

ANDERSON, IND.—Reports state that the American Plate Glass Co. has appropriated $100,000 for erecting additions to its plant.

INDIANAPOLIS, IND.—T. B. Laycock has let the contract for the erection of a 5-story brick and stone building, 125 x 195 ft., on St. Clair St., to cost between $30,000 and $35,000. Thos. A. Winterwood, Arch.

NEW ALBANY, IND.—Reports state that the New Albany Mfg. Co. contemplates enlarging its plant.

MONROE, MICH.—It is reported that a $500,000 beet-sugar plant will be erected here. Prof. E. Salick, of Chicago, is interested.

ODESSA, MICH.—A. C. Hager will erect a 4-story cold storage building, 26 x 60 ft., a 1-story machine and boiler house, 36 x 44 ft., to cost about $15,000. Fred. W. Wolf Co., Archs., Chicago, Ill.

CHICAGO, ILL.—Reports state that Armour & Co. are about to erect a 7-story brick warehouse, to cost $100,000, and a fertilizing plant, to cost $35,000.——Fire here Nov. 24, destroyed the 6-story soap factory building of the Allen B. Wrisley Co., at 479-485 Fourth Ave.

ASHLAND, WIS.—O'Keefe & Orbison, of Appleton, Wis., have been awarded the contract for the erection of a paper mill at this place.

MILWAUKEE, WIS.—Reports state that the Kieckhefer Bros. Co. will erect a series of 5-story buildings, on St. Paul Ave., to cost about $150,000. Ferdinand Kieckhefer, Pres.

OCONTO, WIS.—A fire here Nov. 24, destroyed the planing mills of the Citizens' Electric Light & Fuel Co.; loss, $50,000; insurance, $18,000.

RACINE, WIS.—The plant of the Belle City Malleable Iron Works was destroyed by fire Nov. 22; loss, $100,000; insurance, $40,000.

WAUKESHA, WIS.—W. M. Gleeson, according to reports, states that $15,000 of the $25,000 necessary for the location of a threshing machine factory has been subscribed.

DES MOINES, IA.—It is stated that William Tarkington, of Chicago, Ill., contemplates the organization of a company at this place for the purpose of rolling steel and wrought iron.

DUBUQUE, IA.—The Scriber & Couchar Co., according to reports, will erect a foundry at this place.

COLORADO SPRINGS, COLO.—A fire Nov. 20 destroyed the boiler-house and erection-house of the Colorado Midland R. R.; loss, $25,000.

ROCKLAND, TEX.—William Cameron & Co., whose plant was destroyed by fire, will erect a new building, 240 x 120 ft.

TACOMA, WASH.—Reports state that the London Exploration Co. will invest $600,000 in enlarging the Tacoma smelter. D. O. Mills, of New York, is interested.

PINOLE, CAL.—A fire, Nov. 20, destroyed several buildings of the California Powder Co., causing a reported loss of $25,000. They will probably be rebuilt.

SACRAMENTO, CAL.—The shops of the Southern Pacific Co., recently destroyed by fire, will be rebuilt, according to reports.

WOODSTOCK, N. B.—H. P. Baird, of this city, informs us that the company has not yet been organized for erecting the new pulp mill. Capital is being sought principally from among the owners of paper mills. Experts say that this is a good location for the manufacture of pulp at a low cost.

TORONTO, ONT.—Reports state that a company with a capital of $400,000 is being organized by the Roger Brown Co., of Tonawanda, N. Y., to erect a plant at this place. J. G. Miller, Mgr., of Buffalo, N. Y.

ST. PETERSBURG, RUSSIA.—Bids are asked by the Naval Attache, Imperial Russian Embassy, D. T. Mertvago, 818 18th St., N. W., Washington, D. C., until Dec. 12, for furnishing the set of machinery, and putting it in place complete, for rolling the armor plates, near St. Petersburg. Steam pressure of 7½ atmospheres is ready, and the engine to be used should be of the reversing type. The length of the rolling cylinders should be 4,000 mm., and the maximum weight of ingot to be rolled, 60 tons, with maximum thickness of 900 mm. The rolling machinery must be provided with two regenerative furnaces, each with movable bottoms, but the furnaces themselves are proposed to be built by local means, as stated in our advertising columns.

GAS PLANTS.

BAYONNE, N. J.—It is stated that the United Gas & Improvement Co., of Jersey City, will lay a new pipe line from Lafayette, N. J., to this place.

TOLEDO, O.—Reports state that Thacher & Shirey will lay the 24-in. pipe under the Maumee River for the Toledo Gas Light & Coke Co.

CONVERSE, IND.—Reports state that the Converse Natural Gas & Pipe Line Co. has sold its system to S. S. Murdock, Gen. Mgr. Logansport & Wabash Valley Gas Co.

SPRINGFIELD, ILL.—The Provident Gas Co., according to reports, will erect a plant here. F. W. Tracy, R. D. Lawrence and Stuart Brown may be addressed.

NEW COMPANIES.—Elmira Light, Heat & Power Co., Elmira, N. Y.; $10,000; to produce natural gas. John B. Rathbone, Howard H. Hallock, John A. Reynolds, Thomas S. Flood and Chas. B. Swartwood, Elmira.
Toledo Co-operative Oil Co., Toledo, O.; $12,500.

MISCELLANEOUS CONTRACTS.

TELEPHONE FRANCHISE.—Janesville, Wis.—The council granted a franchise to the Rock County Telephone Co. Nov. 21.

FIRE ALARM SYSTEM.—Philadelphia, Pa.—The council has appropriated $8,000 for the extension of the fire alarm system.

TELEPHONE FRANCHISE.—Doylestown, Pa.—The Standard Telephone Co. has been granted a franchise in this town, according to reports.

REVETMENT.—Toledo, O.—The harbormaster has been authorized to advertise for bids for the revetment work on Ash St., according to reports.

STONE.—Toronto, Ont.—Bids are asked until Dec. 5 for furnishing 75 to 100 toise of stone, at the house of industry. John Shaw, Chn. Bd. Control.

TELEPHONE FRANCHISE.—Plymouth, O.—The Norwalk Telephone Co. has been granted a franchise and will construct an independent exchange.

ELECTRIC HOISTS.—Cripple Creek, Colo.—It is stated that the demand for electric hoists in the Cripple Creek mining district exceeds the supply.

DOCK SALE.—Havana, Cuba.—Bids are asked by the Spanish Admiralty until Dec. 8 for the purchase or lease of the floating dry-dock at this place.

TIMBER BULKHEADS.—Boston, Mass.—Bids are asked until Dec. 7 for constructing timber bulkheads on Summer St. extension. Wm. Jackson, Cy. Engr.

TELEPHONE FRANCHISE.—Long Branch, N. J.—The New York & New Jersey Telephone Co. obtained a franchise Nov. 21 and will lay underground conduits.

BREAKWATER.—London, Ont.—At a meeting of the council Nov. 22 a proposition to construct a breakwater at London West, to cost $75,000, resulted in a tie vote.

SULPHATE OF COPPER.—La Rochelle, France.—Information is wanted by C. Lefort, 10 Cours des Dames, La Rochelle, for furnishing sulphate of copper, according to reports.

DRAIN.—Burlington, Ia.—Bids will soon be asked for the construction of a drain about 8,300 ft. long in Louisa and Des Moines counties. M. P. Sharts, County Audr., Burlington.

CONDUIT.—Syracuse, N. Y.—Manager Nicholson of the Central New York Telephone Co. is reported as arranging for the removal of the telephone wires from the poles to the subway.

TELEPHONE SYSTEM.—Peoria, Ill.—Reports state that the Citizens' Telephone Co. was receiving bids Nov. 18 for the construction of a system. Manager Farwell may be addressed.

REPAIRING STEAMBOAT.—New York, N. Y.—Bids are asked until Dec. 7 for repairs of the steamboat "Franklin Edson." M. C. Murphy, Comr. Dept. of Health, Criminal Court Bldg.

STERILIZING APPARATUS.—New Haven, Conn.—Bids are asked until Dec. 10 for constructing a sterilizing apparatus. Ward Bailey, Clk. Bd. Health, 12 Police Bldg.

CANAL SALE.—Annapolis, Md.—Bids are asked until Feb. 7 for the purchase of the state's interest in the Chesapeake & Ohio Canal; bond for $100,000. Richard Dallam, Secy. of State, Annapolis.

CANAL.—Port Arthur, Tex.—The supreme court has granted the Kansas City, Pittsburg & Gulf R. R. Co. the right to complete the Port Arthur ship canal between Port Arthur and Sabine Pass.

TELEPHONE WORK.—Moline, Ill.—The Central Union Telephone Co. proposes to expend from $35,000 to $40,000 in reconstructing its lines, switchboards, etc., in Moline, Rock Island, Ill., and Davenport, Ia.

SUBWAY.—Harrisburg, Pa.—The council is considering a proposition to construct a subway under the Pennsylvania R. R. and Philadelphia & Reading Ry. at Market St., to cost about $100,000. M. B. Cowden, Cy. Engr.

TELEPHONE SYSTEM.—Snow Hill, Md.—Reports state that Dr. Geo. W. Bishop, Clayton J. Purnell, John P. Moore, Thos. M. Purnell, W. S. Powell and others, are organizing the Worcester County Telephone Co.

TELEPHONE FRANCHISE.—Ludington, Mich.—Fuller & Perkins have applied to the council for a franchise to operate in this place. They also propose to extend the system throughout Mason, Oceana and Manistee counties.

TELEPHONE LINE.—Shamokin, Pa.—The North & West Branch Telephone Co. awarded a contract Nov. 22 for the construction of a line between Williamsport, Montoursville and Montgomery, to cost about $100,000. M. H. Kulp, Pres.

PIER AND TUNNEL.—Philadelphia, Pa.—Bids are asked until Dec. 13 for constructing the superstructure of the Chestnut St. pier, and for constructing the Pennsylvania Ave. subway and tunnel. Thos. M. Thompson, Dir. Dept. Pub. Wks.

TUNNEL.—Los Angeles, Cal.—Plans for the proposed Third St. tunnel, 1,059 ft. long and 32 x 20 ft., of brick and cement; estimated cost, $100,000; were submitted to the council Nov. 21, according to reports. J. H. Dockweiler, Cy. Engr.

CEMENT AND GRAVEL.—Fort Morgan, Ala.—Bids are asked until Dec. 23 for furnishing hydraulic Portland cement and gravel at Fort Morgan, as stated in our advertising columns. Maj. Wm. T. Rossell, U. S. Engr., Mobile, Ala.

PARK WORK.—Buena Vista Springs, Md.—Reports state that W. W. Patterson, Philadelphia, Pa., and the Western Maryland R. R. Co. propose to expend about $25,000 for the construction of a lake and drives near this place for a summer resort.

TUNNEL.—Boston, Mass.—Bids are asked until Dec. 13 for constructing section A of the East Boston tunnel, consisting of about 139 ft. of open incline and 233 ft. of two-track subway. Geo. G. Crocker, Chn.; H. A. Carson, Ch. Engr., Boston Transit Comn.

PIER WORK.—New York, N. Y.—A hearing will be given by the New York Harbor Line Board Dec. 7 for the proposed modification of the pier head line between 31st and 54th Sts., East River, as stated in our advertising columns. Col. Henry M. Robert, U. S. Engr., Pres.

TELEPHONE WORK.—Springfield, O.—The Central Union Telephone Co. will construct a system of underground conduits in the fire district, bounded by Spring, Columbia, Mechanic and Washington Sts. L. G. Richardson, Gen. Solicitor; E. M. Jackson, Engr.

STEEL WORK.—Pago Pago, Samoa.—Reports state that the Carnegie Steel Co., Pittsburg, Pa., has been awarded a contract to furnish the steel work for the U. S. coaling station, to be 150 x 100 ft., for which the contract for the construction was awarded Sept. 13 to Healy, Tibbits & Co., San Francisco, Cal.

PARK WORK.—New York, N. Y.—Bids are asked until Dec. 8 for furnishing 500 cu. yds. of blue limestone screenings, 12,000 cu. yds. of top soil, 800 cu. yds. of gravel screenings and for constructing an iron fence 4,100 ft. long, at Prospect Park, Brooklyn. Geo. C. Clausen, Comr. Parks, Arsenal, Central Park.

LEVEE.—East St. Louis, Ill.—A levee is to be constructed along the banks of the Mississippi River in the northern portion of Prairie du Pont township. A dike will be built 30 ft. high, beginning at Forest Lawn, 4 miles from East St. Louis, to cost about $75,000. Edward Kehr, Julius Pitzman, Adam Karr and others, of St. Louis, Mo., are interested.

PARK SYSTEM.—Chicago, Ill.—A resolution has been presented to the West Park board by S. D. Attridge, of Cicero, and C. W. Juergens and W. F. Quick, of Riverforest, authorizing the committee on public grounds to confer with the West Park board and the village boards of River forest, Harlem, Maywood and Riverside, for the laying out of a combined park system.

CRANE.—Port Royal, S. C.—The following bids were received by the navy department, Washington, D. C., Nov. 26 for furnishing a crane for the naval station:

E. M. Bailey & Co., Charleston, S. C.	$12,500
Wm. Sellers & Co., Philadelphia, Pa.	42,368
Morgan Engineering Co., Alliance, O.	49,687
American Hoist & Derrick Co., St. Paul, Minn.	39,950
Brown Hoisting & Conveying Co., Cleveland, O.	44,500

MACHINERY AND TOOLS.—Washington, D. C.—Bids are asked until Dec. 6 for the following machinery and tools at the navy yard: One combination hand and power feed surfacing machine; one pedestal tenoning machine; two wood-turning lathes, each to swing about 24 ins.; one universal horizontal drilling and boring machine; one 24-in. screw-cutting engine lathe, with 8-ft. bed; one 18-in. screw-cutting engine lathe, 20-ft. bed. Edwin Stewart, Paymaster-General.

RAILWAY EQUIPMENT.—New York, N. Y.—Reports state that the New York Central R. R. Co. is about to award a contract for 5,000 freight cars and proposes to purchase from 30 to 50 new locomotives.——The Seaboard Air Line is considering the question of purchasing new equipment.——The Northern Pacific Ry. Co. will order new passenger cars.——The Oregon Short Line R. R. Co. will order about 10 passenger cars.——The Chicago & West Michigan Ry. Co. is in the market for 100 flat cars.

REMOVING WRECK.—Portchester, N. Y.—The following bids for removing wreck were received Nov. 28 by Maj. H. M. Adams, U. S. Engr., Army Bldg., New York:—

C. W. Johnston, Lewes, Del.	$350
Lynton S. McNeal, Brooklyn, N. Y.	450
Virden & Ross, Lewes, Del.	395
Enoch Townsend, Linwood, N. J.	700
John F. Baxter, New York	185
Merritt & Chapman Derrick & Wrckg Co., New York	150
R. G. & J. S. Packard, New York	500
William Weil, New York	640
H. D. Pausch, Port Chester	425

MACHINERY AND TOOLS.—Portsmouth, N. H.—Bids are asked until Dec. 6 for furnishing the following machinery and tools, at the navy yard: One bolt cutter; one

shaping machine, with planes 16 ins. long and 17 ins. wide; one universal brass lathe, Fox type; one 4-in. pipe machine; one engine lathe, 24 ft. long; one full universal radial drill; two 21-in. manufacturer's wheel and lever drills; six combination chucks; one self-acting planing machine; one No. 6a universal trimmer; one universal trimmer, bed 40 ins. long, 21 ins. wide, with one extra set of knives; one No. 3 combined rip and cross-cut saw. Edwin Stewart, Paymaster-General, Washington, D. C.

MACHINERY AND TOOLS.—Brooklyn, N. Y.—Bids are asked until Dec. 6 for furnishing the following machinery and tools at the navy yard: One horizontal boring and drilling machine, 10 ft. long; one 15-in. pillar shaper; one 16-in. screw-cutting engine lathe; one screw machine; one wet tool grinder; one 72-in. universal radial drill machine; one 24-in. swing wood turning lathe; one twist drill grinder; one hydraulic copper pipe bender; 20 dudgeon hydraulic jacks, from 4 to 30 tons; one vertical milling machine; one combined cutting-off lathe and nut and bolt head facing machine; one vertical wood-boring machine; one machine for threading and cutting off steam and gas pipes with stver, one pipe threading and cutting machine. Edwin Stewart, Paymaster-General, Washington, D. C.

BOILERS, MACHINERY, ETC.—Detroit, Mich.—We are informed that the following bids were received Nov. 21 for furnishing the boilers, machinery, etc., for four complete steam log signals, advertised in Engineering News, Nov. 24; bid of Optenberg & Sonneman recommended for acceptance; Thomson Kingsford put in an alternative bid of $1,003; Lieut.-Col. M. B. Adams, U. S. Engr., Detroit:

Bidder.	Boilers with engines complete.	Boilers with attachments for use—With Crosby machine.	Boilers with attachments for use—With siren machinery.
Optenberg & Sonneman, Sheboygan	$2,266	$1,816	$1,726
Fulton Iron & Eng. Works, Detroit	2,398	1,705	1,603
John P. McGuire, Cleveland, O.	2,500	2,100	1,950
D. Connelly, Cleveland, O.	2,596	1,910	1,795
Thomson Kingsford, Oswego, N. Y.	.....	.....	1,813

CONTRACT PRICES.

WATER PIPE, VALVES, ETC.—Niagara Falls, N. Y.—Our correspondent informs us that the following contracts were let Nov. 22, 1898, for valves, pipes, etc.; the amounts are the lump sums for the work: Lake Shore Foundry Co., Cleveland O.—Pipe, 6-in., 92 tons, $1,460; special castings, 4,825 lbs., $84.40. R. D. Wood & Co., Philadelphia—Valves, ⅝-in., $62.50; valve boxes, ⅝-in., $12.50; hydrants, 13, $351. Labor—W. W. Read & Co., Niagara Falls, laying 5,000 ft. 6-in. pipe, $952; setting ⅝-in. valves and boxes, etc.; setting 13 hydrants, $13; rock excavation, 20 cu. yds., $50.

FORTIFICATION SUPPLIES.—St. Augustine, Fla.—We are informed that the following bids were received Nov. 21, 1898, for furnishing materials on (A) Mullet and Egmont Keys, and (B) at Tampa, Fla.; as advertised in Engineering News: (1) Portland cement, (2) rock, (3) I-beams, etc., (4) trolley systems, (5) anchor bolts, (6) ammunition hoists, (7) ammunition cranes: New Jersey Foundry & Machine Co., Havemeyer Bldg., New York, (A—3) 1.96 cts.; (4) Egmont Key, $563; Mullet Key, $1,736; (A—5) 3.54 cts., (6) $1,024, (7) $94.50; Dallett & Co., 201 Walnut Place, Philadelphia (B—3) 2.53 cts., (B—5) 7.88 cts.; Stewart Contracting Co., Columbia, S. C. (A—2) flagstone, $2.55; granite, $2.99. Southern Lumber & Supply Co., Tampa (B—1) $2.75; T. C. Gill & Co., Philadelphia (A—5) 3.22 cts., (B) 2.95 cts.; Carnegie Steel Co., Pittsburg (A—3) 1.78 cts., (B) 1.73 cts.; Phillips & Fuller, Tampa, Fla. (A—1) $2.59; Wm. F. Bowe, Augusta, Ga. (B—2) $4.06; George Wolff, New York (A—1) $2.49, (B) $2.79; Southeastern Lime & Cement Co., Charleston, S. C. (A—1) $2.62, (B) $2.32; Atlas Cement Co., 143 Liberty St., New York (A—1) $2.70, (B) $2.50; E. M. Bailey Co., Charleston, S. C. (A—1) $1.00 (B) 99 cts., (A—2) 26½ cts., (B) 25 cts; (A and B—3) $1.85 each, (A and B—4) $4.75 each; (A and B—5) $1.85 each; (6) $5.21, (7) $240; Brown Hoisting & Conveying Machine Co., Cleveland, O. (A—4) $1,200, (B) $1,876; Commercial Wood & Cement Co., 156 5th Ave., New York (A—1) $2.85; Alpha Portland Cement Co., The Bourse, Philadelphia (A—1) $2.34, (B) $2.44; W. C. Spotswood (A—2) $4.95.

BRIDGE FOUNDATION.—Washington, D. C.—A. J. Lakenaw, Ch. Clk., writes us that the following bids were received Nov. 22, 1898, for constructing foundations for bridges across Rock Creek at two avenue extensions; as advertised in Engineering News:

Bidder.	Connecticut Ave.—Excavation, 6,500 cu. yds.	Connecticut Ave.—Concrete foundation, 3,000 cu. yds.	Massachusetts Ave.—Excavation, 6,000 cu. yds.	Massachusetts Ave.—Concrete masonry, 2,500 c. yds.
J. F. McCabe, Baltimore	$0.65	$6.50	$0.65	$6.50
T. B. Jones & Co., Baltimore.	.85	6.90	.70	6.20
Engineering Con. Co., N. Y..	.45	7.35	.45	7.35
D. F. Mockaber, Washington..	.65	7.70	.50	6.60
Cranford Pvg Co., Washington	.55	5.75	.60	5.65
John Jacoby, Wilmington, Del.	.50	6.00	.50	6.00
Lyons Bros., Washington, D.C.	.72	6.50	.67	6.25

BRICK PAVING.—Lancaster, O.—The following bids were received Nov. 16, 1898, for brick paving in West Union St.: C. W. Parido—Curbs, material, 14 cts.; labor, 5 cts.; excavation, 12 cts.; Fultonham block, 40 cts., labor, 17 cts.; Bolen's brown granite, 50 cts., labor, 17 cts.; Buckeye block, 51 cts., labor, 17 cts.; Nelsonville block, 50 cts., labor, 17 cts.; Hallwood block, 50 cts., labor 17 cts.; resetting old curb, a ft., 8 cts.; limestone backing, a ft., 15 cts., labor, 5 cts.; catchbasins, each $20.00, labor, $7; two elbows, $2.50, labor, 25 cts.; sewer pipe, 18 cts., labor, 2 cts. Fricker & Clovert—Curbs, a ft., 10 cts., labor, 10 cts.; excavation, 20 cts., a cu. yd.; Logan block—material 39 cts., labor, 10 cts.; Fultonham block, 43 cts., labor, 10 cts.; Nelsonville block, 50 cts., labor, 10 cts.; resetting old curb, a ft., 10 cts; sewer pipe, 7 cts., labor, 6 cts.; limestone backing, a ft., 30 cts.; 2 catchbasins, $30.00 each, labor, $6.50. James Whissel—Curbs, 10 cts., labor, 15 cts.; excavation, 15 cts.; Nelsonville S. P. Co. block, 44 cts., labor 22½ cts.; resetting old curb, 10 cts.; limestone backing, 15 cts., labor, 10 cts.; catchbasins, each, $17.50; sewer pipe, 15 cts., labor, 20 cts.

STREET CLEANING.—Jersey City, N. J.—The street and water board received bids Nov. 23, 1898, for cleaning streets and removing ashes and garbage. The standard fixed by the chief engineer was for sweeping streets, $11 a mile; sweeping asphalt streets, $8 a mile, and for removing ashes and garbage for the year, $17,000. Thomas Harrington's offer was 91½% of the standard prices, and Henry Byrne, who will get the contract, bid 83% of the standard figures.

DREDGING.—Coos Bay, Ore.—Maj. W. L. Fisk, U. S. Engrs., Portland, Ore., writes us that the following bids were received Nov. 15, 1898, for dredging in Coos Bay, as advertised in Engineering News: Wakefield & Jacobson, Portland, Ore., 29 cts. a cu. yd.; W. N. Concanon, 40 New Montgomery St., San Francisco, Cal., 19¾ cts.; San Francisco Bridge Co., San Francisco, Cal., 23½ cts.

CONDUITS.—Erie, Pa.—F. Hanlon, Cy. Clk., writes us that the following bids were received Nov. 17, 1898, for extending the conduit system:

Quantities.		B. J. Murphy, Erie.	*Kraft & Walther, Erie.	Mayer Bros., Erie.	G. B. Kelly & Co., Chicago.
Conduit:					
2 or 3 duct	500 lin. ft.	$0.15	$0.105	$0.135	$0.09
4 " 5 "	1,600 "	.135	.095	.09	.09
6 " 8 "	1,200 "	.12	.085	.08	.09
3-in. wrt. i. pipe	1,000 "	.28	.22	.24	.23
Manholes: Class A	1	35.00	34.00	25.00	30.00
Class B	6 each	26.50	24.00	30.00	22.50
Class C	4 "	20.00	11.00	18.00	18.00
Service boxes	2 "	3.00	5.00	4.50	5.00
Total		$1,777	$1,813	$1,791	.....

Certain Conduit Equipments.

Bidder.	Price for each. Poles erected—60-ft., 5.	Poles erected—50-ft., 15.	10-pin cross-arms—Single, 50.	10-pin cross-arms—Double, 150.	Tot'l.
*G. B. Kelly & Co.	$20.00	$18.00	$1.25	$1.00	$583
Kraft & Walther	36.00	20.00	1.00	2.00	830

*Awarded contracts.

ENGINEERING MATERIAL PRICES.

TRACK MATERIALS—
New York—Angle bars, 1.05 cts. to 1.10 cts.; spikes, 1.40 cts. to 1.50 cts.; track bolts, hexagonal, 1.80 cts. to 1.85 cts.; square, 1.60 cts. to 1.70 cts.
Chicago—Angle bars, 1.10 cts.; spikes, 1.55 cts. to 1.60 cts.; track bolts, hexagonal, 1.90 cts. to 2.00 cts.; square, 1.80 cts. to 1.90 cts.

RAILS, STEEL—
New York, new, $17.50 to $19.00.
Chicago, new, $20.00 to $24.00; old iron, $12.75 to $13.00; steel, 88.00 to $11.00.
Pittsburg, new $17.50 to $20.00.

STRUCTURAL STEEL—
New York—Beams, 1.35 cts. to 1.45 cts.; channels, 1.35 cts. to 1.45 cts.; tees, 1.45 cts. to 1.50 cts.; angles, 1.20 cts. to 1.25 cts.; rivets, 1.75 to 1.85 cts.
Chicago—Beams, 1.35 cts. to 1.50 cts.; channels, 1.35 cts. to 1.50 cts.; tees, 1.40 cts. to 1.50 cts.; angles, 1.30 cts. to 1.35 cts.
Pittsburg—Beams, 1.20 cts. to 1.30 cts.; channels, 1.20 cts. to 1.30 cts.; tees, 1.20 cts. to 1.25 cts.; angles, 1.10 cts. to 1.15 cts.

PLATES AND SHEETS—
New York—Universal mill plates, 1.30 cts.; tank, 1.35 cts. to 1.40 cts.; shell, 1.40 cts. to 1.45 cts.; flange, 1.60 cts. to 1.70 cts.; firebox, 2.25 to 2.50 cts.
Chicago—Universal mill plates, 1.30 cts. to 1.35 cts.; tank, 1.12 cts. to 1.15 cts.; shell, 1.30 cts. to 1.35 cts.; flange, 1.25 cts. to 1.45 cts.; firebox, 1.75 cts. to 4.00 cts.; sheets, 2.00 cts. to 2.10 cts.
Pittsburg—Universal mill plates, 1.10 cts. to 1.15 cts.; tank, 1.125 cts. to 1.15 cts.; shell, 1.30 cts. to 1.35 cts.; flange, 1.20 cts. to 1.25 cts.; firebox, 1.50 cts. upwards; sheets, 1.85 cts. to 1.95 cts..

MERCHANT STEEL—
Machinery, per lb., 1.60 cts. to 1.70 cts.
Tool, per lb., 5.50 cts. to 7 cts.

IRON—
Pig iron:
New York—No. 1, $11.25 to $11.50; No. 2, $10.50 to $10.75.
Chicago—No. 1, $11.50 to $12.50; No. 2, $11.00 to $12.00.
Pittsburg—No. 1, $10.50 to $10.75; No. 2, $10.00 to $10.10.
Bar iron:
New York, common, 1.10 cts. to 1.15 cts.; refined 1.50 cts. to 1.60 cts.
Chicago, common, 1.05 cts. to 1.10 cts.; refined, 1.15 cts. to 1.20 cts.
Sheets:
Common, American, per lb., 2.15 cts. to 2.85 cts.
Russia, per lb., 10½ cts. to 11.00 cts.

LUMBER—
New York:
Hemlock timber, 20 ft. and under, per M, $12.00 to $12.50.
Piling, Eastern spruce, 35 to 40 ft., 30 to 40% 12-in. butts, 4.25 cts.
Spruce, special cargoes, per M, $15.00 to $17.50.
Yellow pine, random cargoes, $15.50 to $17.00.
North Carolina pine, $2.25 to $2.40 advance over Norfolk rates.
San Francisco:
Oregon pine, per M, $15.50 to $17.50.
Redwood, per M, $18.20 to $20.00.
Redwood tank stock, up to 10 ft., $24.00 to $25.00.

GENERAL MATERIALS—
Lead, New York, $3.67 cts. to $3.72 cts.
Nails, Pittsburg, 1.40 cts.
Solder, per lb., 8¼ cts. to 11½ cts.
Spelter, per lb., 3.90 cts. to 4.00 cts.
Copper ingots, 12.85 cts. to 13.00 cts.
Granite, rough, New York, cu. ft., 40 cts. to 50 cts.
Limestone, New York, cu. ft., 70 cts. to 80 cts.
Ohio freestone, New York, cu. ft., 85 cts. to 90 cts.
Slate, Penn., block, per square, $4.00 to $5.00.
White lead, American, per lb., 5½ cts. to 6 cts.
Lime, common state, per bbl., 70 cts.

INDUSTRIAL NOTES.

THE PITTSBURG LOCOMOTIVE & CAR WORKS, Pittsburg, has an order for 50 consolidated locomotives, with 22 × 28-in. cylinders, for the Baltimore & Ohio R. R.

THE CHATTANOOGA CAR & FOUNDRY CO., Chattanooga, Tenn., asks us to contradict the statement that has appeared in several other papers that the plant of the company has been or is to be sold.

THE RITER-CONLEY MFG. Co., Pittsburg, has a contract, according to report, from the Boston Gas Co., Boston, for a steel gas purifier house, 100 × 275 ft., containing two 35-ton traveling cranes.

THE SCHOEN PRESSED STEEL CO., Pittsburg, has an order for 1,000 steel coal cars of 100,000 lbs. capacity each, for the Baltimore & Ohio R. R., to be used in the seaboard trade. They are expected to be placed in service during the early part of 1899.

REESE, HAMMOND & CO., Bolivar, Pa., have opened an office in the Bissell Block, Pittsburg, with Mr. Thomas McConville in charge of the paving brick department. This company was established in 1867 to manufacture fire brick, and its annual capacity is now 30,000,000. It also manufactures paving brick and blocks. It reports its works as being operated to full capacity, with prospects for an unusually good trade in paving brick next year.

THE WESTINGHOUSE ELECTRIC & MFG. CO., Pittsburg, is reported to have the following orders from England for electric railway apparatus: Hull Tramway Corporation, 92 motors to equip 45 cars and one track sweeper; Halifax Tramway Corporation, 12 motors to equip six cars; Bradford Tramway Co., 48 motors to equip 24 cars; Norwich City Corporation, 80 motors to equip 40 cars, and four dynamos to be installed in the power house of the Norwich Tramway Corporation; City of Coventry, 20 motors to equip 10 cars and two power dynamos; City of Plymouth, 10 motors and two power dynamos for electric railways.

HEALY, TIBBITTS & CO., San Francisco, Cal., are reported to have the contract for the construction of a coal shed and wharf at the U. S. Coaling Station at Pago Pago, Tutuila, Samoa. The coal shed will be 100 × 150 ft., of structural steel, covered with corrugated galvanized iron, resting on steel piles, 6 and 8⅝ ins. in diam., made in sections 24 ft. long, weighing about 5,000 lbs. The piles rest on a coral formation from 50 to 70 ft. below water. About 2,800,000 lbs. of steel will be required for the coal shed. The approach will be 256 ft. long and the wharf 336 ft. long, and about 350,000 lbs. of iron will be used. The total cost of the work is estimated at $240,000. Mr. John. B. Leonard, of San Francisco, is the Chief Engineer for Healy, Tibbitts & Co.

NEW COMPANIES.—Noble Water Clarifying Co., St. Louis, Mo.; $20,000; Jay Noble, Charles Mullkin and L. E. Davison.

Baltimore Filter Co., Baltimore, Md.; $1,000; to manufacture filters for filtering waters and all kinds of oils; Robert M. Spedden, Robert H. Smith, Joseph E. Henderson, Lucien B. Carpenter and Z. Franklin Potter.

Clinton Boiler Works, Clinton, Ia.; $10,000; J. T. Cullen and D. L. Murphy.

American Reduction Co., of Jersey City, N. J.; $1,000,000, commencing with $500; to reduce, manufacture and deal in aluminum and other metals, etc.; F. C. Trusdow, Henry Austin Adams, James A. MacElhinney, Charles B. Hobbs and Anson McCook Beard, of New York.

Porto Rico Prospecting & Development Co., New York; $400,000, commencing with $500; to lease and otherwise acquire real estate; to prospect for minerals and to do a general mining business; James A. Pearce, Edward A. Corder, D. George Thompson, M. Grose and J. Harvey Jones, all of New York.

Healy Construction Co., 60 Grand St., Jersey City, N. J.; $100,000, commencing with $20,000; to construct, equip and improve public or private works; Wm. M. Laws, of Jersey City; Austin S. Healy, 64 5th Ave., New York; Daniel W. Beach, Washington, D. C.

Kilbourn Construction Co., 211½ Market St., Camden, N. J.; $10,000, commencing with $1,000; to construct icemaking machinery, engines, etc.; Hannibal W. Rappleye, Philadelphia, Pa.; Walter C. McCurdy, Riverton, N. J.; John T. Woodhull, Camden.

Sand Filter & Construction Co., 35 North 2d St., Camden, N. J.; $100,000, commencing with $1,000; to construct all kinds of filters; Jesse S. White, Merchantville, N. J.; Augustine T. Lynch, Philadelphia, Pa.; John O. White, Camden.

Lincoln Foundry Co., 1 Railroad Ave., Lincoln, N. J.; $2,000, commencing with $1,000; to conduct a foundry business; Wm. H. Kenyon, Howard B. Tapscott and Daniel J. Pierce, of Lincoln.

Mohawk Construction Co., 167 Main Ave., Passaic, N. J.; $30,000, commencing with $1,000; to construct and repair railways, etc.; C. Walter Artz, Roselle, N. J.; Geo. D. Patten, Plainfield, N. J.; Fred. H. Mollenhauer, Jersey City, N. J.; Thos. E. O'Shea, New York.

American Motor Co., Augusta, Me.; $250,000, all paid in; to do a general manufacturing business; Pres., Alexander Fischer, New York; Treas., Frederick R. Blount, New York.

E. R. Patteson Construction Co., New York; $10,000; to do a general contracting business; E. R. Patteson, James F. O'Rourke and George E. Robinson, of New York.

Automatic Trip Railroad Gate Co., 234 Union St., Elizabeth, N. J.; $100,000, commencing with $10,000; August D. Turner, 63 5th Ave., and F. C. Von Heydebrand, 17 West 90th St., of New York; Thos. H. Smith, 234 Union St., Elizabeth.

Empire Rail Co., 60 Grand St., Jersey City, N. J.; $1,000,000, commencing with $3,000; to mine and manufacture iron and steel goods; Wm. Fillingham, Kenneth R. McLaren and Harry W. Meen, Jersey City.

Manufacturers and Producers Supply Co., Pittsburg, Pa.; $50,000, commencing with $50; to manufacture and deal in oil wells, railway and other supplies; Henry G. Wasson, Geo. M. Cote and Burt C. Wasson, Pittsburg, Pa.; J. P. Brownlee, Allegheny, Pa.; H. H. Patterson, Beaver Falls, Pa.

Pridham Fertilizer & Chemical Commercial Co., 781 Broad St., Newark, N. J.; $100,000, commencing with $1,000; to manufacture fertilizers, collect, sterilize and dispose of sewerage, water and other liquids; Paul Buchanan, Marshall Pridham, Samuel S. Pridham, L. D. H. Gilmour, of Newark.

Manning Signal Lamp Co., Des Moines, Ia.; $100,000; L. D. Rood, W. D. Sheehan, E. S. Manning, S. Compton and H. T. Mills.

Automatic Machine Mfg. Co., Baltimore, Md.; $300,000, commencing with $50; to carry on a general manufacturing business; J. I. A. Haughton, Dover, Del.; Geo. W. Smith, Chas. B. Penrose, Geo. C. Morrison, and F. D. Morrison, of Baltimore.

Tyler Hydrant & Valve Co., New York; $1,000,000, commencing with $100; to manufacture and sell all kinds of machinery; E. Ellery and H. L. Jouffrion, Brooklyn; J. A. Simmons and Wm. H. Llewellyn, New York; Wm. P. Ellery, Hackensack, N. J.

Standard Gas Machine Co., New Haven, Conn.; $15,000; Jas. Graham, Israel A. Kelsey and Chas. E. Graham, of New Haven.

Mail Delivery Notice.

Special efforts are made to deliver our paper to its readers each week at the earliest possible moment. The largest binding and mailing establishment in New York begins work on Engineering News early each Wednesday evening, and all papers for Boston, Philadelphia and Washington are usually in the New York post-office by midnight; all Brooklyn and New York city papers by 3 o'clock—in ample time for the first delivery Thursday morning. The entire edition, including foreign copies, is in the mail soon after 6 o'clock Thursday morning. If your paper is not received promptly we advise that you make a complaint to your local post-office officials.

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